NEIGHBORHOOD NETWORKING

EQUITABLE URBAN PLANNING THROUGH NETWORKING

Chelsea Short

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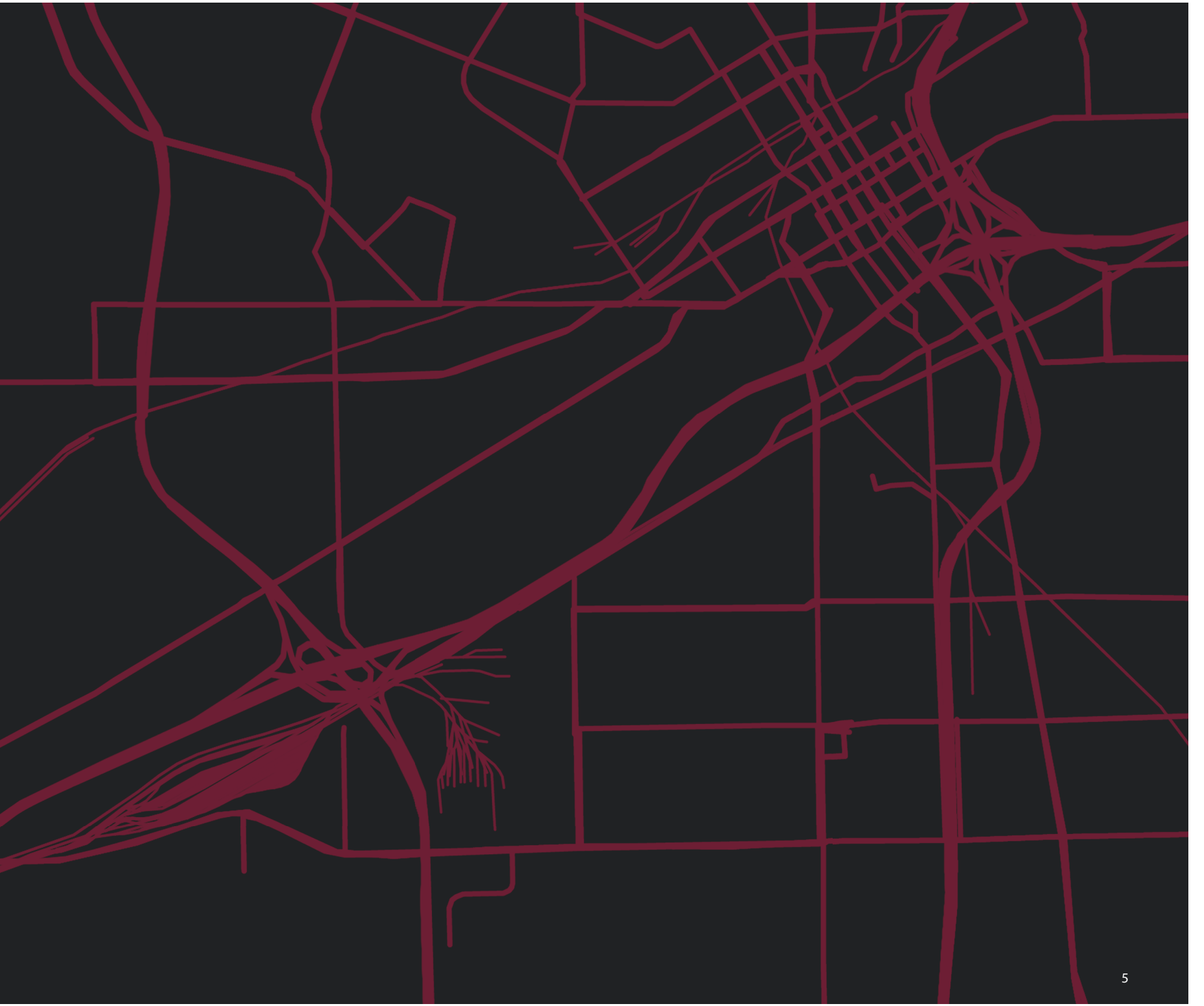


ACKNOWLEDGMENTS

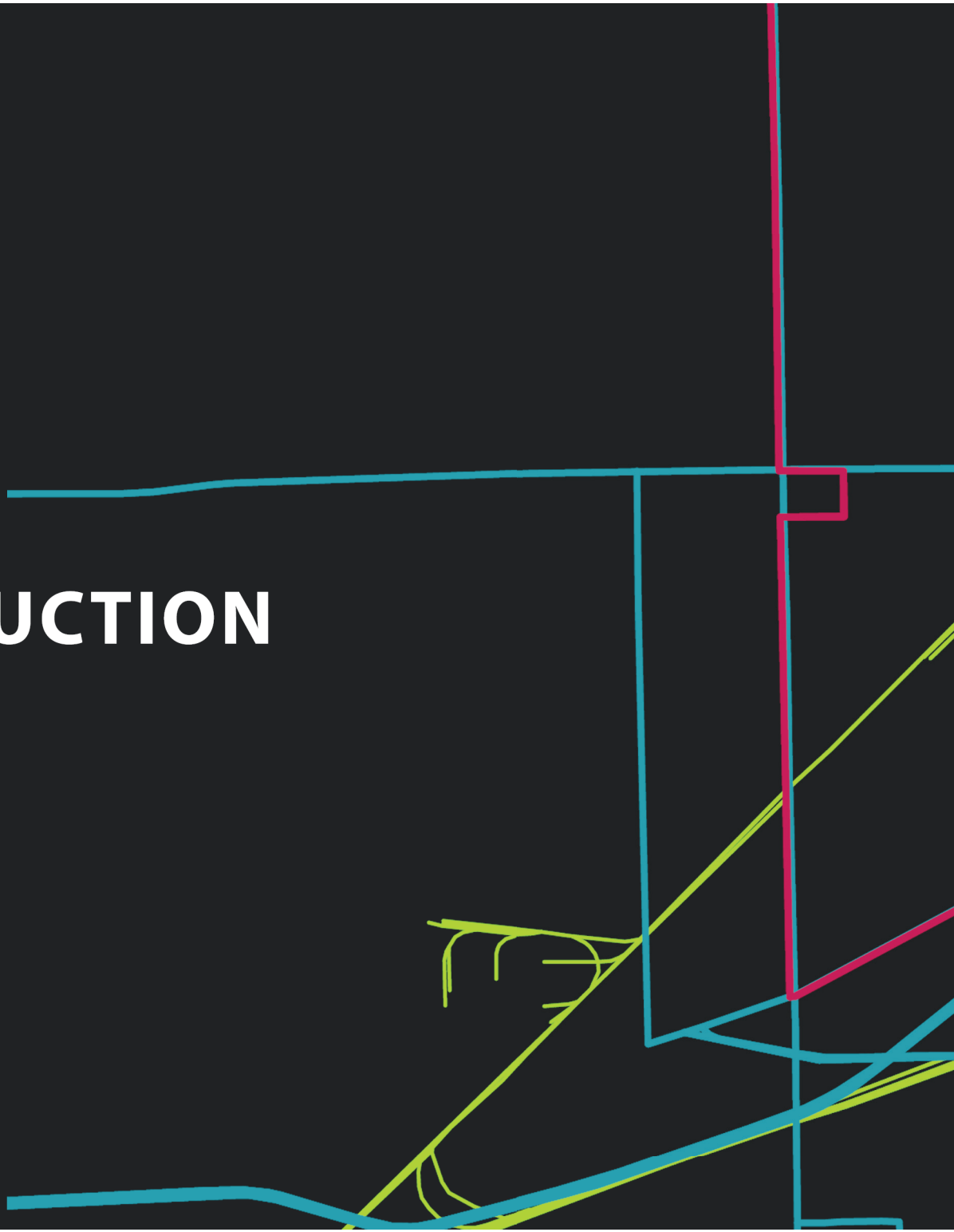
There are many people to recognize for where I am today. To begin, I would like to thank Laura Foxman for her insight and patience. I would also like to recognize her diverse and create portfolio that helped direct my graphic style and overall research process. Thank you to Ceara O'Leary and Erin porter for introducing me to Public Interest Design and community development. Your Influence inspired my passion in architecture and helped me realize a greater purpose in design. I would also like to acknowledge my fellow classmates. The experiences and knowledge gained with them will continue to influence my work and perception of design.

I would also like to extend my deepest gratitude to someone who has made all of this possible - my fiance, Kyle Dunn. He has stood by my side throughout my education with unconditional support and perfectly timed 'you've got this' reminders.

This thesis as it stands today would not have been made possible without the support and wisdom you all have given me.

Thank you.

INTRODUCTION



ABSTRACT

Shifting urban planning methodologies to reintroduce equity, support the foundation of a city and emphasize the strength of community engagement through networking. Urban contexts are compositions of interwoven systems of networks whose interactions, transactions and actions determine its functionality. Small scale components such as Individuals and communities are linchpins in these frameworks, and equity in urban planning begins here marking the beginning of a causal sequence unfettered by the limitations of urban scale. Conventional methods of urban planning miss the significance of urban scale and the presence of urban networks, resulting in one-sided development leaving communities locked in a state of disinvestment. This research studies how appropriately scaled urban planning can reintroduce resources and allow disinvested communities to become self-sustaining through a methodology that utilizes networking concepts from various urban scales by highlighting interaction through physical and social networks. Utilizing networking methodologies in urban planning allows us to transform the perception of cities as places, spaces and locations into active networks of interactions, transactions, and actions that initiate development, sustainability, and creates equitable planning that connects individuals, neighborhoods, cities and regions.

Figure 0.1 - Neighborhood Networking Vignette

THESIS STATEMENT

Cities are composed of networks and connections that work together and appear at all scales of a metropolis. These relationships occurring at the neighborhood scale are similar but vastly different then those that appear at the city or regional scale. This is because cities, and their networks, function and develop based on scale. An exploration of Master Plans, their scale, networks and implications find that urban planning serves best developed proportionately to the scale and networks of the city.

This research studies how appropriately scaled urban planning, such as strategic Neighborhood Framework planning, can reintroduce resources and allow disinvested communities to become self-sustaining networks. Conventional methods of urban planning miss the significance and connection between urban networks and urban scale, resulting in disproportionately designed urban plans that move themselves into obsolescence. Although urban planning is intended to benefit all facets of a city, plans developed systematically typically lead to many communities that become disinvested and locked in a state of poverty with limited access to resources. Utilizing network science allows us to identify and leverage the elements that influence relationships within urban subsystems to create the most efficient plans.

The progression of disinvestment can be traced back through political, social and spatial principles of developing cities. Neighborhood Networking provides a theoretical groundwork, historical perspective, detailed arguments and explanatory case descriptions for network oriented thinking in developing urban planning strategies for disinvested communities. In conjunction with the extents and relationships within a city, this study also investigates methods of community development and the role of community engagement in the planning processes. With this knowledge it provides insight in developing urban plan frameworks that serve regional, city and neighborhood developments of a city. Neighborhoods are diverse in culture, history and identity. The action of community development mobilizes through a series of networks that inspire interactions or movements that interconnect people,

Figure 0.2 - Disinvested Neighborhoods

resources and infrastructure; it is then materialized through transactions of shared knowledge, platforms and collective action. An integration of urban networking and participatory design in urban planning methodology prompts critical engagements between people, technology, and the urban environment, and results in the production of creative expressions of local issues that equitably serve those involved. This is important because there are many cities throughout the U.S. that are in a state of steady decline and communities struggling to overcome the limitations caused by changing economies urban policy and planning created by injustice of urban planing. The development of strong partnerships involving local citizens, civil society, the local economy and the various levels of government are essential in reversing the implications of previous urban planning.

One important note is that urban planning cannot be equitable without consideration for the neighborhoods and communities that are the foundation of a city, and if provided with the adequate support the urban planning efforts at this scale will serve the individual along with regional, city, neighborhood developments. This thesis hopes to introduce new urban planning strategies through a new lens that bridges the gaps of inequality at the neighborhood scale.

THESIS STRUCTURE

Problem

1

In an attempt to better understand equity in urban planning this thesis began by studying the conditions of Flint neighborhoods and the methods and implications of conventional urban planning.

Response

2

Primarily focusing on connection, this project follows with an investigation and contextualization of interconnections of urban networks, urban scale, community engagement.

In order from left to right. Figure 0.3 - Disinvested Communities in Flint. Figure 0.4 - Urban Networking. Figure 0.5 - Participatory Neighborhood Planning. Figure 0.6 - Flint Michigan.

Framework

3

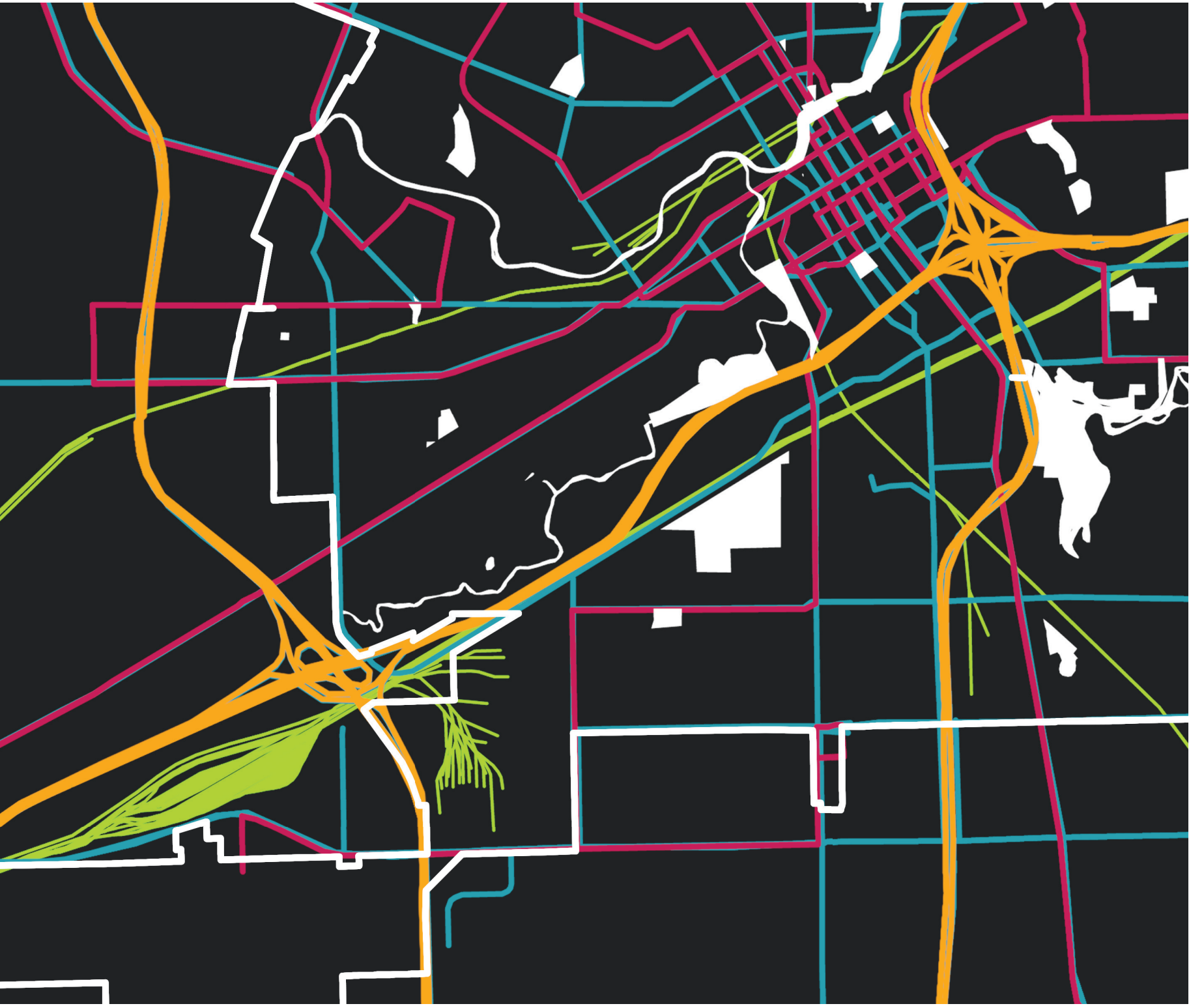
After gaining an understanding of urban planing and connection, the concepts of the various urban scales reviewed are utilized in developing a structure for a networked neighborhood framework plan.

Application

4

Once the framework was developed it is applied to various contexts within Flint. This provides an examination of how Neighborhood Networking can have a collective impact.

CHAPTER 1:
WHAT IS NEIGHBORHOOD NETWORKING?



WHAT IS NEIGHBORHOOD NETWORKING?

This thesis hopes to introduce new urban planning methodologies that bridges the gaps of inequality at the neighborhood scale through urban networking. In conjunction with the extents and relationships within a city, this study also investigates methods of community development and the role of community engagement in the planning processes.

The significance of neighborhood networking as a new way to approach urban planning is that it provides designers and planners a new lens to see how urban settings function as complex systems of connections that open up possibilities for a richer urban life, resource accessibility, neighborhood stability, it also provides opportunity for a new mix of different programmes and more complex urban connections that can be limitless.

This thesis proposes a unique definition of "networking" from an urban planning perspective that takes into account the impact of urban scale and the relationships created through physical and social networks. Neighborhood Networking is defined as an urban planning practice that materializes through the interactions, transactions and actions that are commonplace in social and physical networks, whose connections are fundamental in urban developments, in order to ensure equality through inclusive planning, accessibility to resources, and creating the groundwork for sustainable communities. A networked urbanism that is immersive and collaborative aims to re-shape an environment from within whose influence has subsequent transactions occurring between urban scales.

This definition stems from the idea that disinvested communities, or inequitable areas that have become intentionally withdrawn from investment by the city, often experience limited accessibility to resources resulting in a disconnect between people, the city and municipal structures. This definition of networking from an urban planning perspective takes into account the impact of urban scale and the relationships created through physical and social networks.

This thesis introduces three leading concepts that are fundamental in equitable urban planning through an interdisciplinary approach that takes urban planning at the neighborhood urban scale combined with the concept of community engagement in the process and frames it inside of an intrinsic networked system. Through this system communities are met with equitable urban planning.

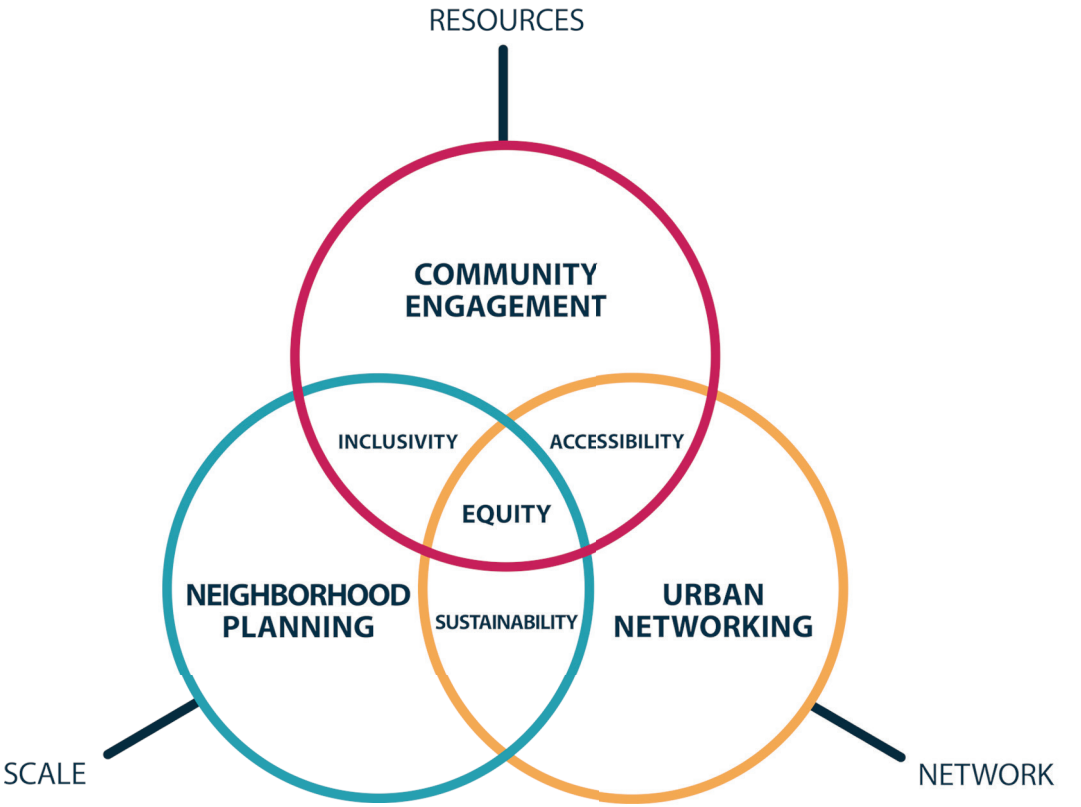
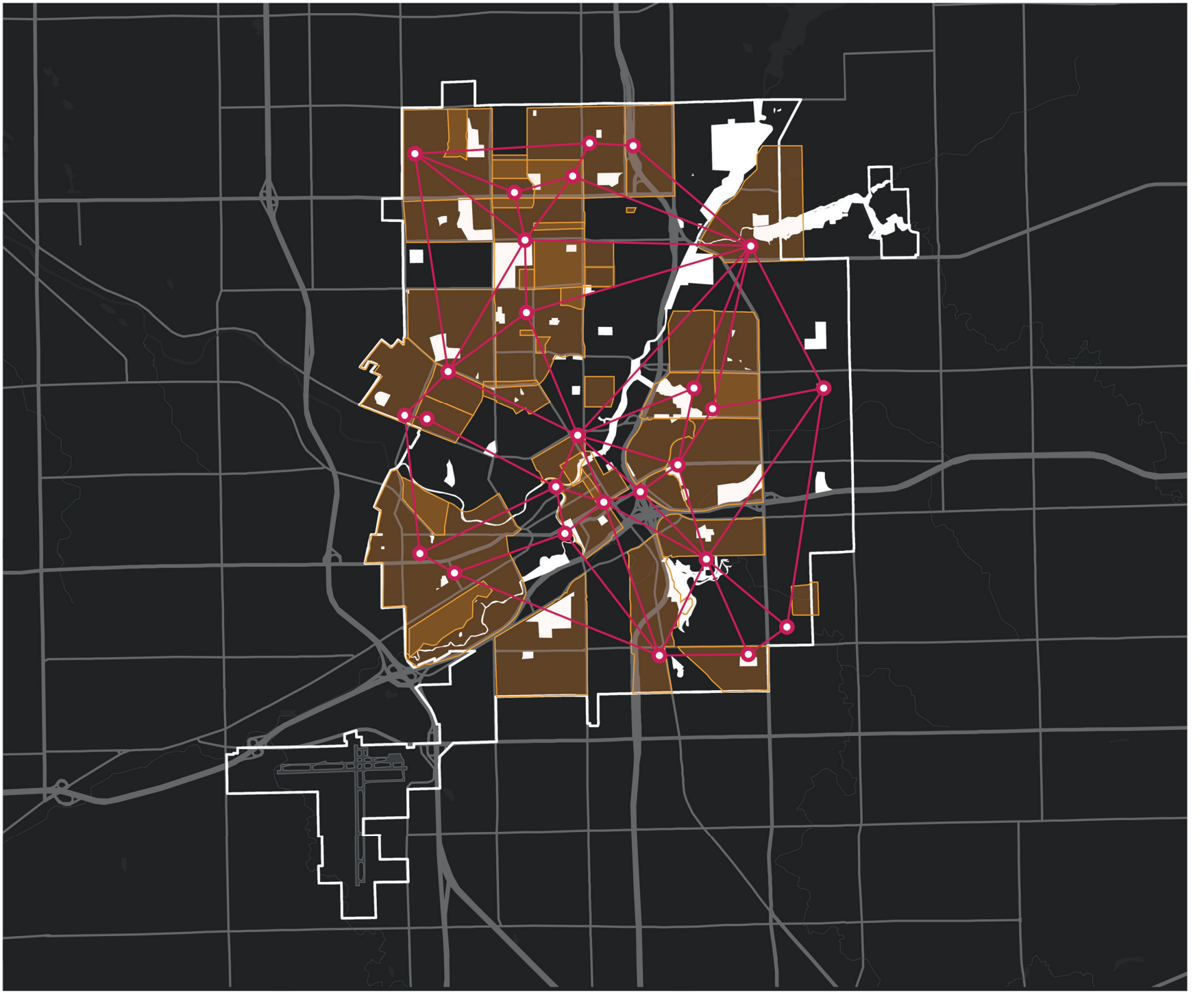


Figure 1.0 - Neighborhood Networking Interdisciplinary Research
Figure 1.1 - Neighborhood Networked City



URBAN NETWORKING

The first concept is urban networking. This can be defined as an organizational structure that links cities based on commonalities and interdependencies at various urban scales. This includes anything involved in the physical infrastructure of the city including roads, sidewalks, or simply the geography or topographic conditions; along with the social facets of an environment which include the way in which a space is used or communication.

URBAN SCALE

The second is scale, which is a measurement that categorizes variables based on the nature of information within their values. In regards to urbanism, urban scale is the ratio of city elements to the individual human being or to some activity, such as the walking distance to a bus stop (See Figure #.#). Scale is central to the way we portray relations across space and time (CA Simko, 2006). Extents at which a city functions and are developed, although vastly different, are contingent upon one another. It is important to look at the roles of each scale, along with their differences and similarities because they compose a complex system of networks that a city operates upon.

Lastly, community engagement. This concept involves the collaborative work process between residents, organizations, municipalities and other entities involved in developments of the welfare of a community (See Chapter 4). The concept of Neighborhood Networking is to establish relationships that connect communities so that individual and collective needs can be met through community engagement. In order for Neighborhood Networking to be successful there must be sufficient participation from community members. Underlining the city's existing connections through urban networking will strengthen their role in urban planing and the collaborative impact residents can have on urban revitalization.

These concepts overlap in the way they affect how people interact, the direction in which a city grows and its overall function. Our ability to combine these concepts may allow us to influence economic, political, social and spatial aspects on multiple scales through networked urban planning.

GLOBAL
REGIONAL
CITY
NEIGHBORHOOD
INDIVIDUAL

CHAPTER 2:
THEORIES OF URBAN PLANNING

UNDERSTANDING URBAN PLANNING

The motivation for this thesis was to look into the conditions of Flint neighborhoods and the need to reexamine the way that urban planning is done and introduce a strategic framework. Before equity can be achieved the concept of urban planning must first be understood.

Cities function and develop based on its present need and demand, urban planning, also known as regional planning, town planning, city planning, or rural planning, is meant to guide this evolution through a methodology that is both technical and political in process and focused on the development, design and regulation of the uses of space that focus on the physical form, economic functions, and social impacts of the urban environment and on the location of different activities within it (Taylor, Nigel,1998). This needs to be reexamined because traditional urban planning strategies are typically only focused on addressing one main concern, often under representing the communities that make up the city.

Traditional urban planning strategies are typically focused on addressing one main concern, often under representing the communities that make up the city. Without such planning, cities quickly become inefficient and uninviting for residents and businesses alike. Disconnected urban planning leads to disinvestment, urban decay, marginalization, displacement, population loss, and overall urban decline that affects all urban scales. Instances resulting in disinvested communities or shrinking cities. Investigating urban planning that causes these issues and those that aim to correct these issues will help inform the research. Cities are composed of networks and connections that work together and appear at all scales of a metropolis. These relationships occurring at the neighborhood scale are similar but vastly different then those that appear at the city or regional scale. This is because cities, and their networks, function and develop based on scale. An exploration of Master Plans, their scale, networks and implications find that urban planning serves best developed proportionately to the scale and networks of the city.

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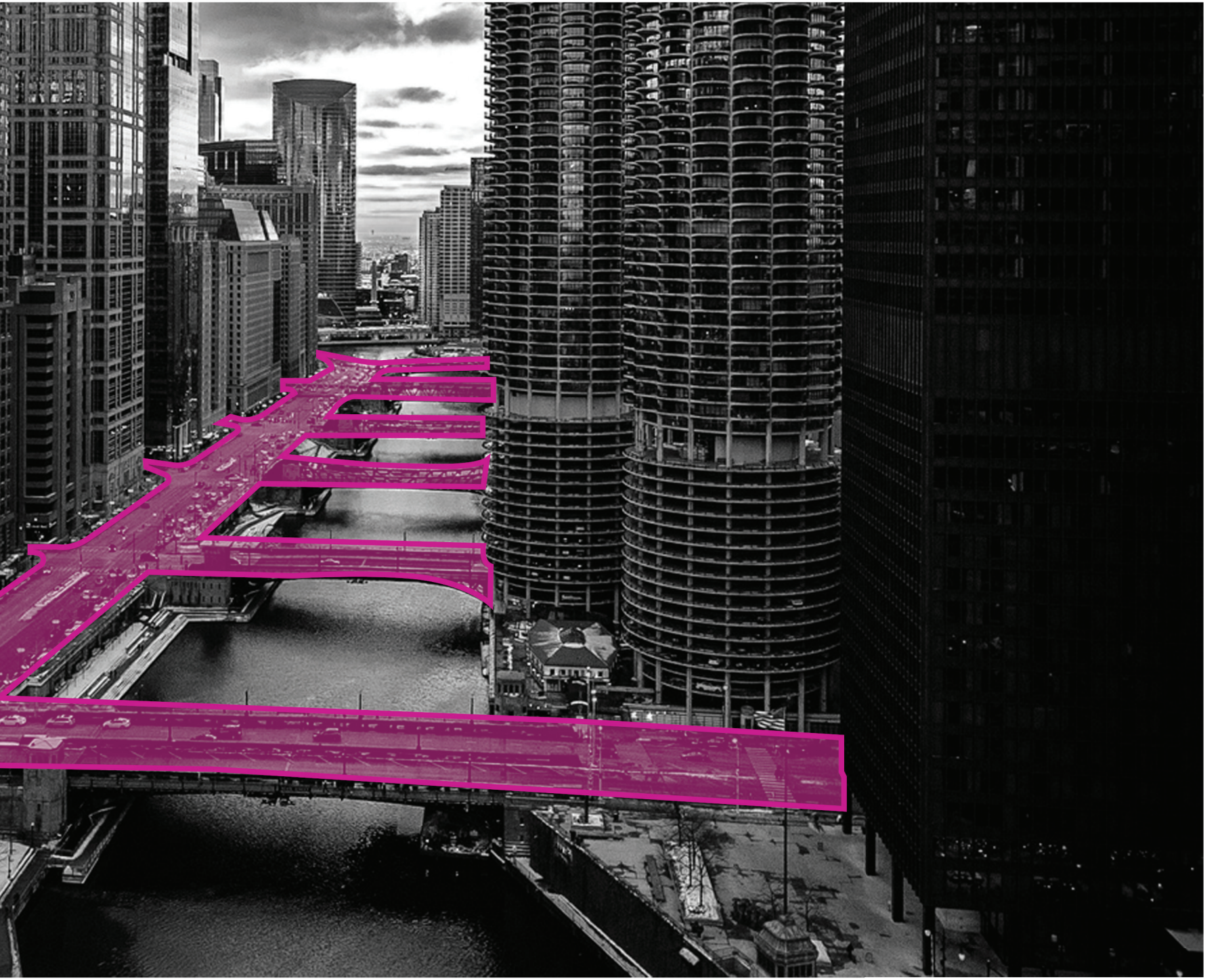
Figure 2.0 - Urban Planning Network Visualization



URBAN PLANNING HIERARCHY

Urban planning is not limited to the master planning of cities, it also occurs at many scales, beginning with regional planning all the way through to neighborhood planning. Outlining this information is important in defining the role of planning and understanding the significance between the differences in scaled planning.

Regional Planning
The U.S. Census Bureau defines region as a variety of metropolitan and micropolitan statistical areas. Regional Planning addresses the arrangement of land use activities, infrastructure and settlement structure across a large geographical area. This typically includes multiple states and cities (Planetizen, 2022). This form of planning addresses specific issues across regions such as transportation, economic development, and environmental elements.

Master Planning
Master Planning, also known as City Planning, is about analyzing and drawings connections between populations, land use, community facilities, economic factors housing and transportation. This plan provides long term conceptual layouts for guided development of a metropolitan area. (Urban Regeneration, 2022).

Zonal Planning
Zoning planning is a regulatory tool used by the city to categorize the uses of the built environment. The sectioning of land uses shapes the layout of towns and cities in order to guide specific types of developments.

Sub-Zonal Planning
Sub-zones are divisions within a planning area which are usually centered around a focal point such as neighborhood center or activity node (Data.gov.sg, 2016). Sub-Zonal Planning categorizes zones that are informational subdivisions of a larger zone. This achieves community connections by being divided into east, west, and south zones with sub-zones in each.

Local Area Planning
Local Area Planning is a process of planning that is concerned with resolving local level problems and issues. Its priorities include overall welfare of the people and development of the local area. . Maintenance of social services and amenities, promotion in the quality and quantity of local products and services and keeping surroundings and local environment clean and green are some of its continuous concerns (Planning Guidelines,2013).

Neighborhood Planning
Neighborhood Planning is a form of urban planning through which professional urban planners and communities seek to shape new and existing neighborhoods (Wigan Council, 2022).

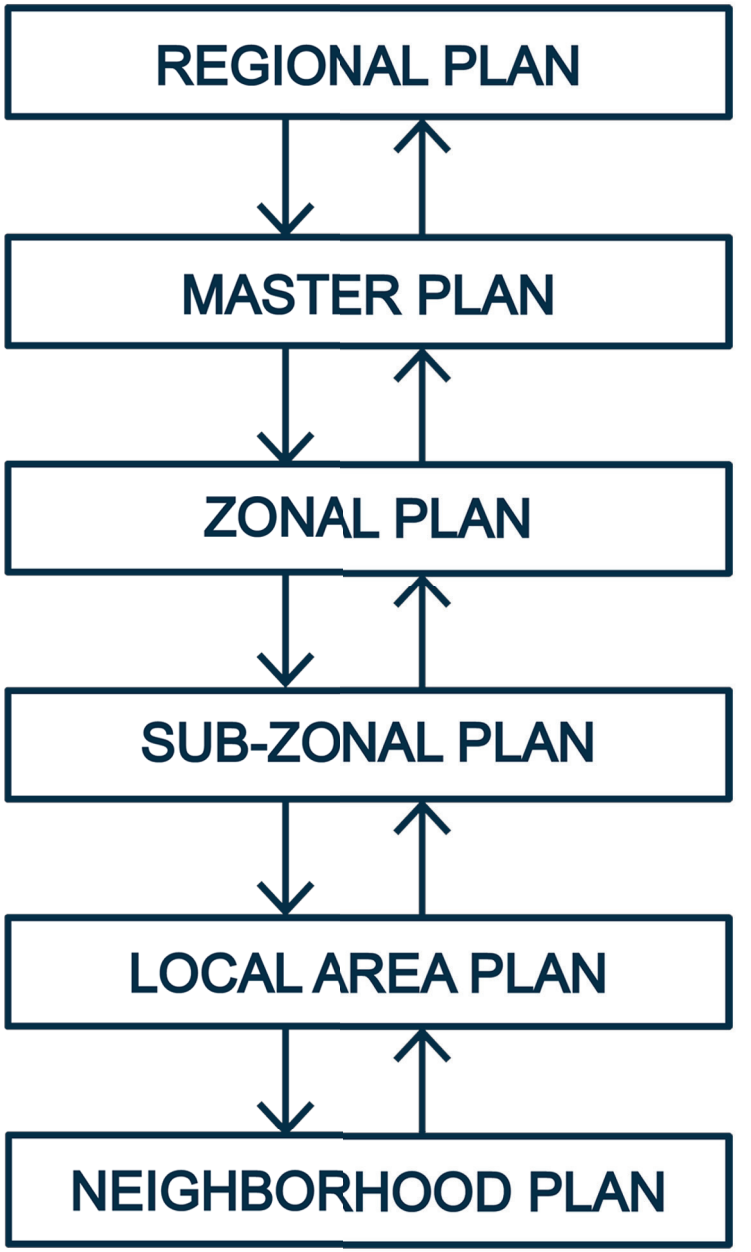


Figure 2.1 - Urban Planning Hierarchy

Figure 2.2 - Regional Planning

Figure 2.3 - Master Planning

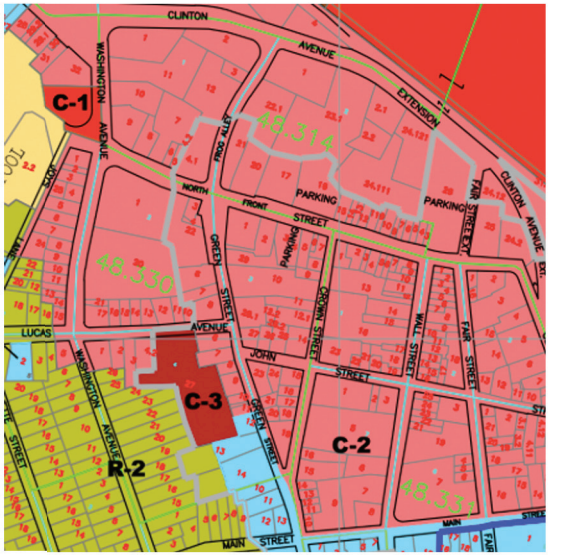


Figure 2.4 - Zonal Planning

Figure 2.5 - Sub-Zonal Planning

Figure 2.6 - Local Area Planning

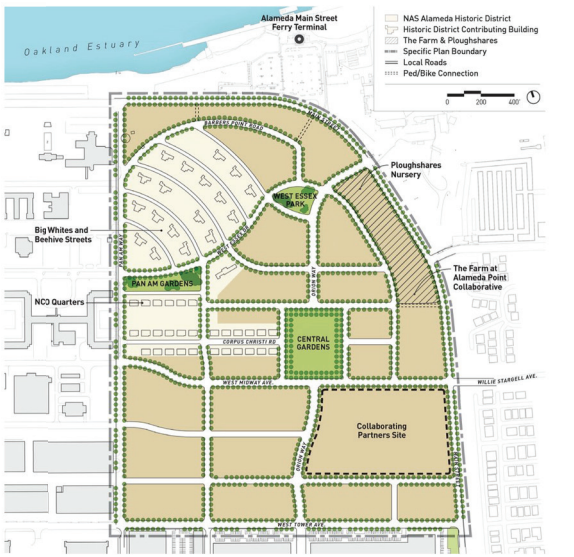


Figure 2.7 - Neighborhood Planning

URBAN PLANNING PROCESSES

In order to better understand equitable urban and neighborhood planning we need to break down urban planning by scale into components, outline how they are connected, understand how these strategies are digested within a city and where. Doing so will allow us to better evaluate how large scale planning can be applied equitably at the smaller scales of the city. Utilizing a methodological reduction will help identify issues in urban planning in the conduct of research with the aim to improve planning methodology.

Knowledge of the general processes of urban planning is important because these processes and connections within vary based on urban scale. A single urban plan would not equitably serve on a multi-scale level. A comparison between multilevel urban scales puts into perspective the significance planning plays and how great the variation is, highlighting how essential appropriately scaled urban planning is and revealing a system of networks within the planning process.

"There is always uncertainty about the outcome of processes of change that originate from the bottom up…cities that are surprising in that their form cannot be anticipated from the assumptions and processes adopted in their representation. … this approach is consistent with the way many people feel about the limits of our abilities in in management and planning. …it is a consequence of the complexity approach that appropriate models should provide 'information' rather than 'solutions,' should 'inform' rather than 'solve." (Michael Batty, 2007).

Many cities have been developed through top-down urban planning. Typically when discussed, most would describe a city's development as beginning as a small settlement that progressed through advancements in industry and trade. Early planning efforts were centered around emphasizing growth in these areas in order to sustain populations and permit growth and development into a city. The initial concept of early planning of cities is to support the people within it through a tiered system centered around supporting industry and trade, and where this support would trickle down supporting all aspects and development of a city and eventually reach the people. Michael Batty has several works defending the concept of participatory planning. He emphasized the importance of r community engagement in the planning process when he said the following in *The New Science of Cities*, "Treating design as a process of collective rather than individual action, or at least collective action where individuals come together to pool ideas and to effect rational compromises as opposed to individual action….Design, like many aspects of public government, has been the provision of collective goods through individual action. Newer theories of planning and design, however, suggest that traditionally, one of the field ' s failures has been this emphasis on expertise or individual action, and that a better product might result if design were treated as collective action." (Michael Batty, 2013).

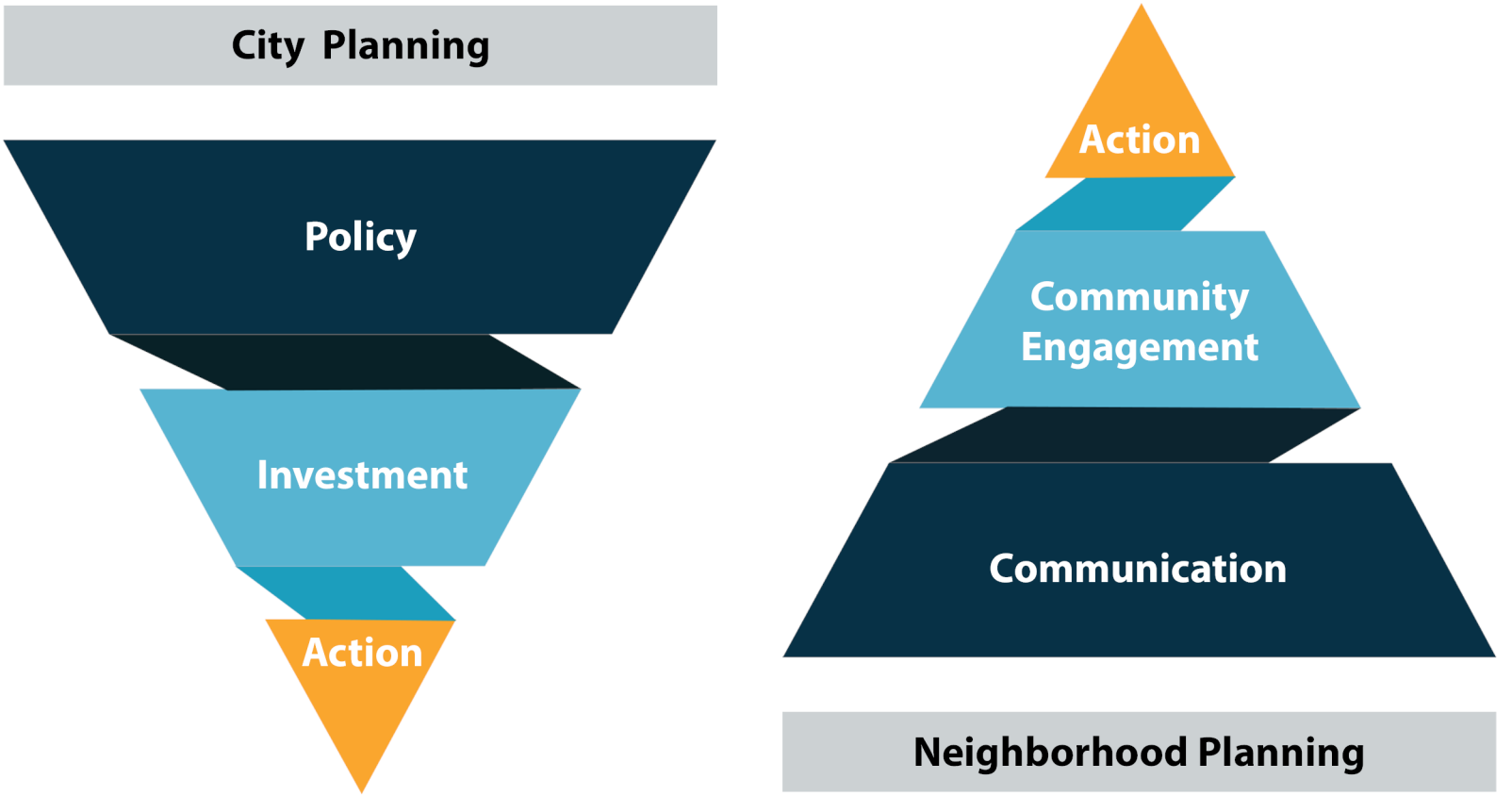


Figure 2.8 - Bottom -Up vs. Top-Down Planning

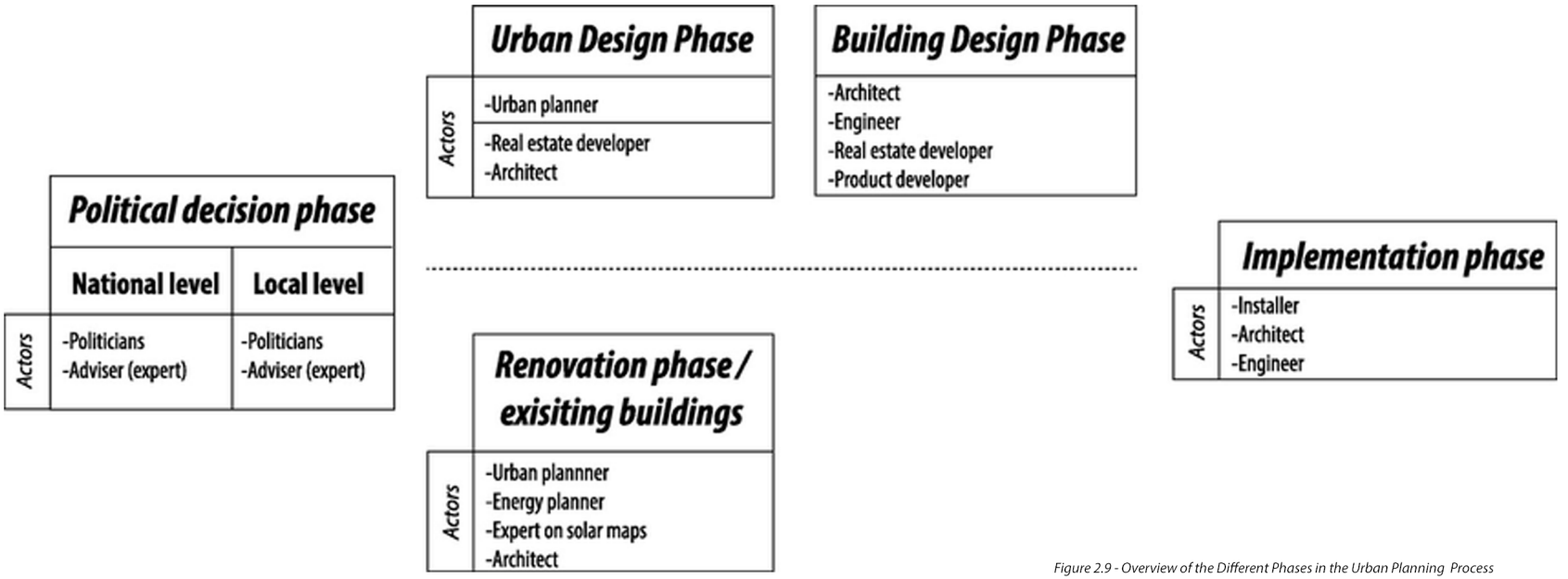


Figure 2.9 - Overview of the Different Phases in the Urban Planning Process

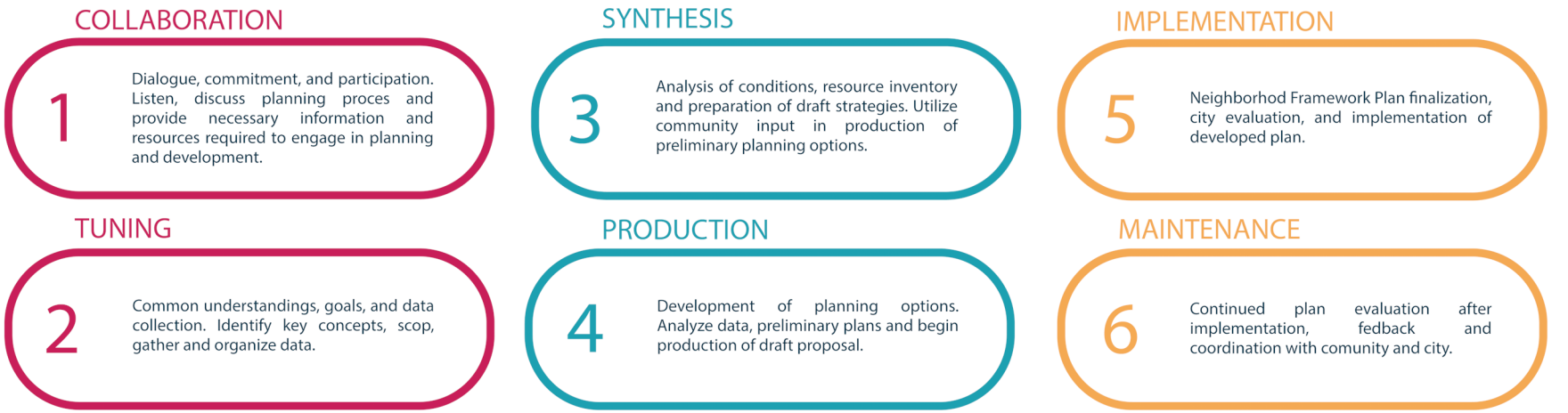
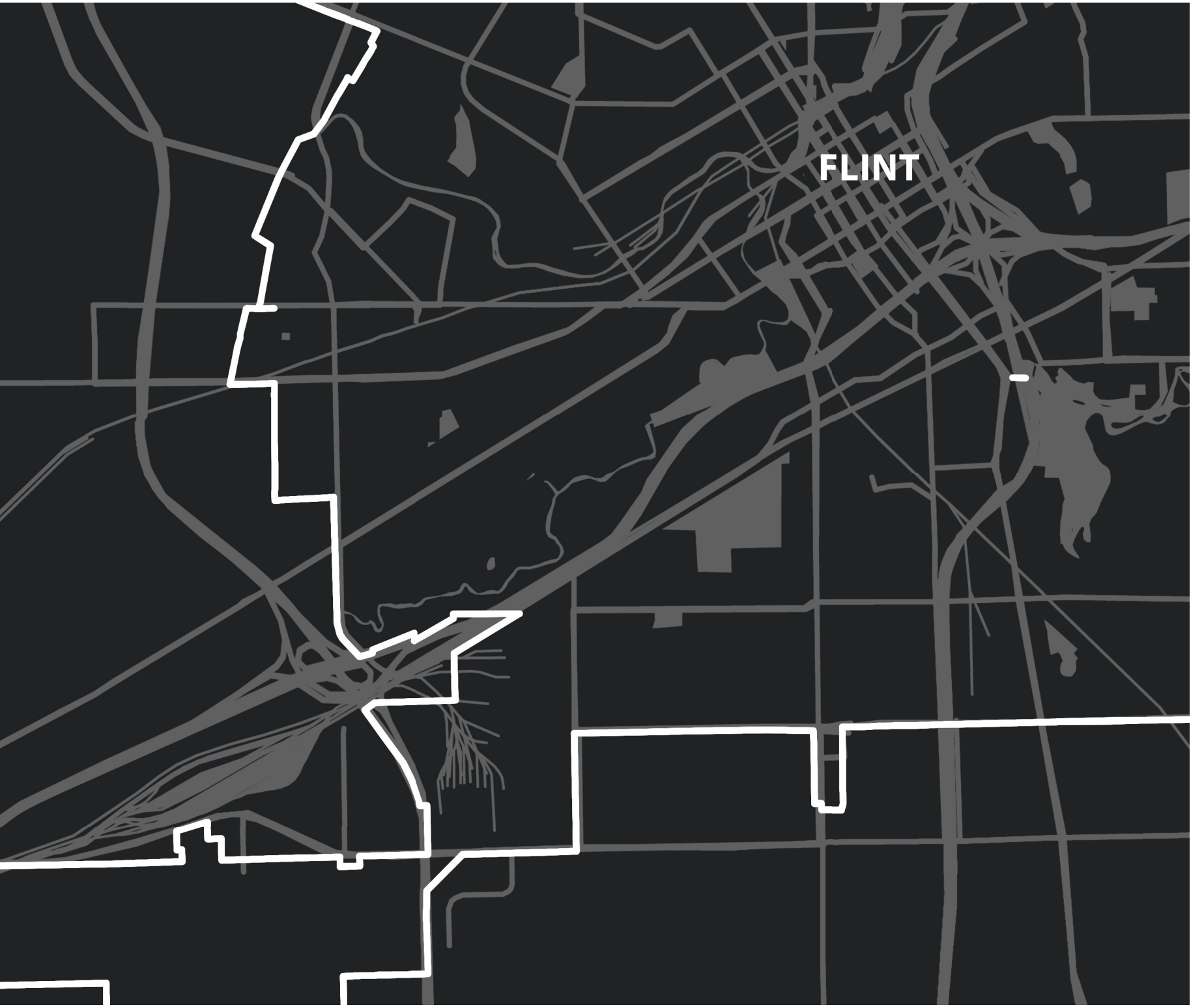


Figure 2.10 - Overview of the Different Phases in the Participatory Urban Planning Process

CHAPTER 3:
FLINT MICHIGAN - A DISCONNECTED CITY


FLINT

FLINT MICHIGAN

In an attempt to better understand the inequities in urban planning, or the disconnect with communities, this project examines the current conditions of Flint Michigan in relation to its current and previous master planning. In order to establish neighborhood networking, it is important to understand the contexts of the urban environment in which it is creating connections. This idea introduces the social, spatial, economic and political facets to be addressed through neighborhood networking and what implications that may present. This study chronicles the changing landscape of the social, spatial, economic and political structures mobilized through inequitable city planning and any resulting implications present.

An important step in this research was to situate it through an investigation of site specific conditions. A contextual and historical analysis illustrates the severity of disconnect between residents and municipality happening in Flint, it also informs research on ways to address the city and what elements can be leveraged through Neighborhood Networking. The city of Flint is most commonly recognized for the rise and fall of the automobile industry and the current water crisis. However, what it should be recognized for is the resiliency of its residents. These are communities that have learned to rapidly adapt to their continually changing surroundings, implications of policy and availability of resources. This makes the city a perfect fit for a community engagement based urban framework plan.

Historically, the political, economic, spatial and social facets of cities have been systematically structured through racism, classicism, sexism and more. These barriers have limited opportunities for success in communities regardless of income, religion, race, ethnicity, gender, or sexual orientation and have left disinvested neighborhoods without the resources to grow. The urban policies put into place by Flint government officials assisted in the deindustrialization and the continuing rapid decline of the city. The severity of decline can be directly related to the urban policies cities implemented both in the past and presently. Current policy and renewal efforts attempt to prevent further decline by rapidly introducing mass capital and erasing slums but these endeavors inadvertently accelerate decline in other areas of the city. Events leading up to this can be traced back through the city's planning, a contextual analysis and its history.

Residents and communities are the foundation of cities. Unfortunately in the case of Flint Michigan, like many other cities, these populations have become disinvested through unjust and disconnected urban planning. Major developments in Flint began early on with segregation, marginalization and structural racism through urban planning. As the city has evolved, policy and planning has caused disinvestment in public schools, infrastructure, healthcare, housing and more. These communities are still experiencing the effects of deindustrialization. Areas of the city are still having dramatic drops in population, infrastructure isn't being maintained and the overall condition of the city, outside the downtown area, is declining. With the lasting effects of post-industrial decline, the Flint water crisis and the COVID-19 pandemic city's are learning how to respond to these challenges in many way, one of those being networking among themselves, communicating, collaborating and learning. This thesis presents evidence documenting these trends, and makes the case for new urban planning frameworks to address cross-jurisdictional equity problems that emerge during everyday activities at the neighborhood scale.

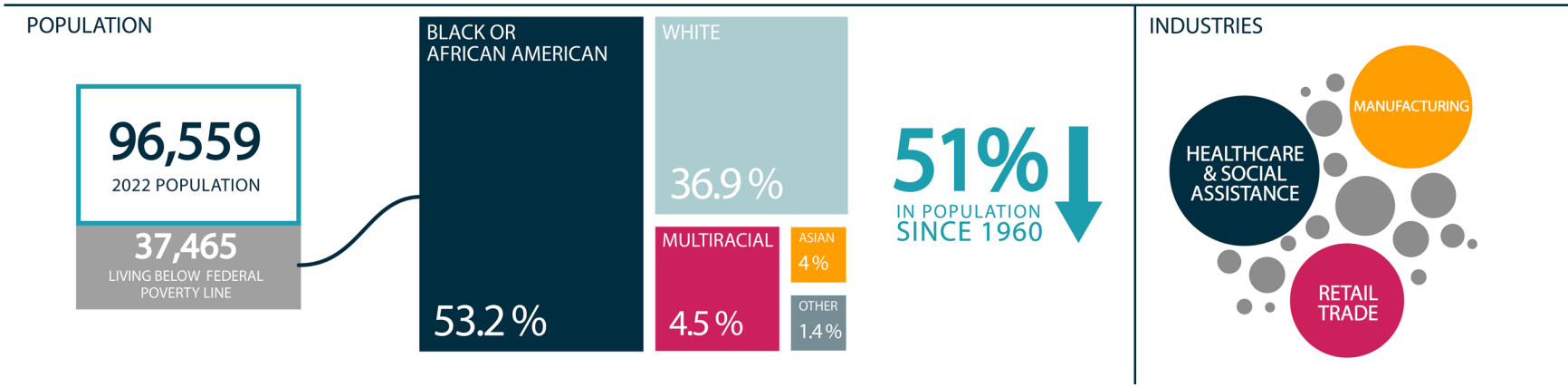


Figure 3.0 - Flint Demographics

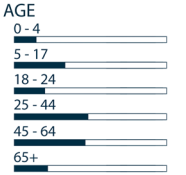
Figure 3.1 - Images Representing the Identity of Flint

ECONOMY

U.S. ANNUAL MEDIAN INCOME
$67,712

4.03 %
1 YEAR GROWTH

AGE



36
Median Age

25.9%
Population 0 - 17

PROPERTY CONDITIONS

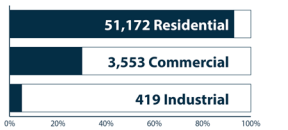
28%
Vacancy

EDUCATION

8,040
Kids Attending School

18.6%
Earned a Degree

LAND USE



Data from the U.S. Census Bureau

HISTORIC CONTEXT

As we continue to move down scales, we can begin to understand how the support of urban planning at any scale is reciprocated. In the case of Flint, where up until 2013, had operated under a 53 year old outdated master plan that did not support the current conditions of the city, had little to no support for neighborhoods or communities and inadvertently created disconnect between municipality and residents. This means there was no interaction, transaction or action happening within the city. This contextual analysis illustrates the severity of decline and disconnect between residents and municipality happening in Flint.

An in depth historical analysis revealed what events and policies led to the city's current condition. The last official City of Flint Master Plan was adopted in 1960 and was created relying on an assumption of continued population growth and a robust economy, neither of which materialized. The overall lack of planning, the realities of a declining population, and the struggling local economy all resulted in a city that was ill prepared to face the challenges it has today.

The City of Flint is still trying to recover from structural racism, deindustrialization, and suburbanization. A population decrease of this magnitude places challenging stresses on every system, from infrastructure and government services, to education, economic development and most importantly the communities that make up the city. The lingering effects of redlining combined with decaying infrastructure, a housing crisis continually generating vacancies and locking residents into a city that has become stagnant in growth and community development.

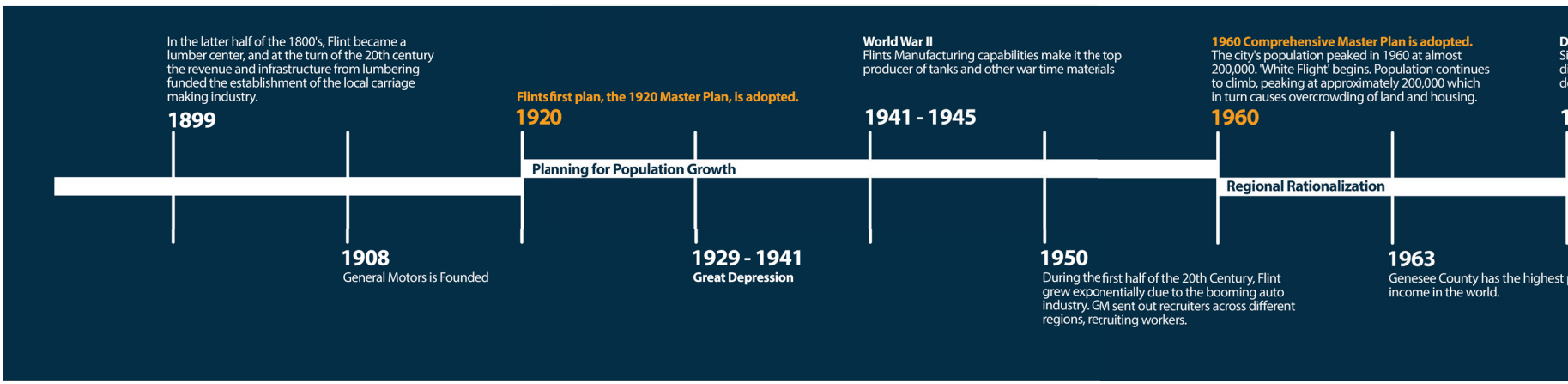


Figure 3.2 - Flint Timeline

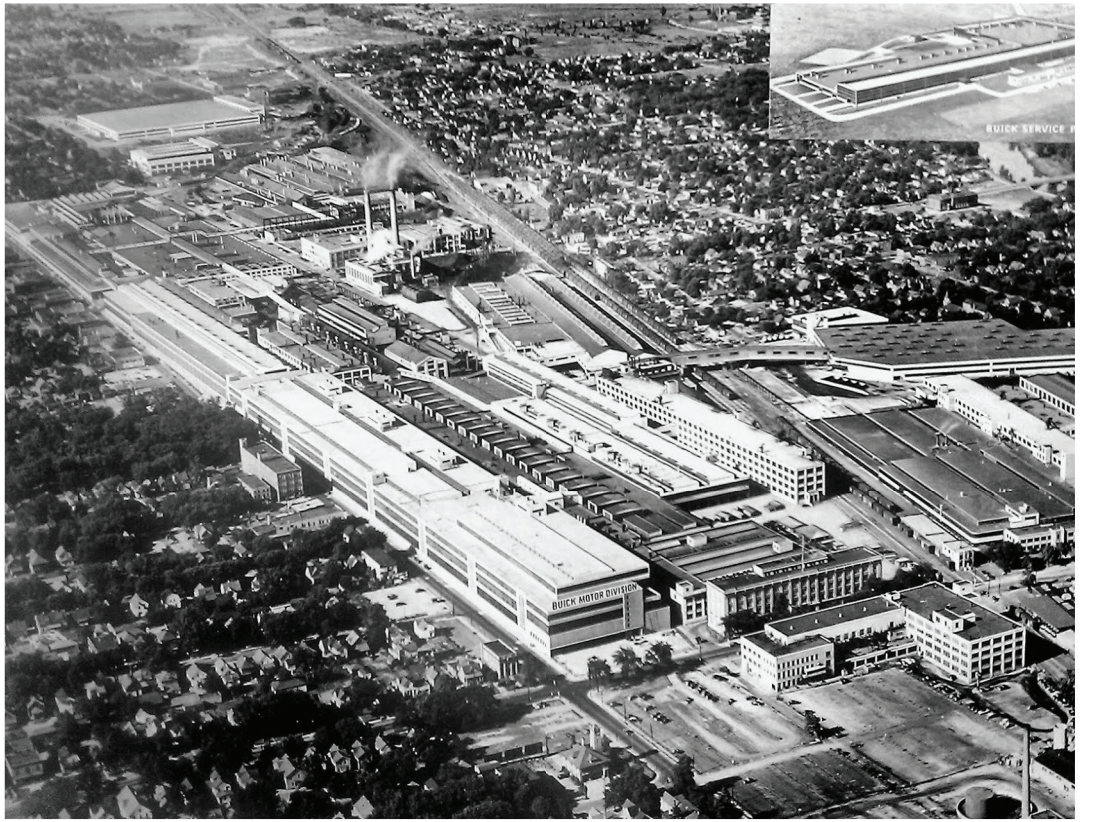


Figure 3.3 - Images Representing Flint Throughout the Years

eindustrialization
nce the late 1960's, Flint has suffered from
sinvestment, deindustrialization, and
epopulation.

969

High inflation and high unemployment marked this severe global recession. Hardest hit included the auto, paper and forest products, rubber, and airline industries.

1980

GM begins massive layoffs and plant closures. Overall, roughly 30,000 people loose their jobs over the next consecutive years.

1986

Redlining
De-industrialization, tax delinquency, and predatory lending pushes the local housing market into a state of near collapse. Population is nearly halved.

2010

Flint Water Crisis
Flint water crisis Flint changes its water source from the Detroit Water and Sewerage Department to the Flint River.

2014

Planning for a Flexible Future

per capital

1979
Oil Crisis exacerbates decline of the automobile industry. Widespread global panic spread, fallout of the decrease in oil production due to the Iranian revolution. Prices of crude oil increase.

1982
Flint area has the highest unemployment rate of all metro ares in the country at 23.4%

2002-2009
Genesee County Land Bank quietly repossess 9,000 homes, businesses and lots within Flint,

2013
Flint updates their master plan for the first time in 53 years and the Imagine Flint Master Plan is adopted.

PLANNING REVIEW

This research of the implications of the city's planning, and the role it played in current conditions along with a historic and contextual analysis was necessary to inform the cause and effect of inequity and identify elements that can be leveraged and avoided in future planning. Investigating urban planning that causes these issues and those that aim to correct these issues will help inform the research.

The City of Flint developed three comprehensive or master plans. The ways in which each plan proved to contain accuracies and failures is instructive for the practices of neighborhood networking and equitable urban planning methods. As we continue to move down scales, we can begin to understand how the support of urban planning at any scale is reciprocated. In the case of Flint, where up until 2013, had operated under a 53 year old outdated master plan that did not support the current conditions of the city, had little to no support for neighborhoods or communities and inadvertently created distrust and a separation between municipality and residents. This means there was no interaction, transaction or action happening within the city.
The city and its infrastructure developed in the 1920 and 1960 master plans have become unsustainable. Previous planning efforts' failure to support its foundation has led to the decline of the city and has ultimately hindered the recovery of the population and its economy.

1920 CITY PLAN:
PLANNING FOR POPULATION GROWTH

At the time the 1920 Master plan was being developed the concern surrounded population growth. This plan addressed the earlier developments of Flint through a Top-Down lens. The main recommendations of the Master Plan was to create business, civic, and industrial districts; build a Union Station; acquire parkland; provide resources for schools; and improve roads. While actively planning for population growth, segregation was also an active part of the plan, the effects of redlining are still present to this day (Edward McClelland, 2014).

1960 COMPREHENSIVE MASTER PLAN:
REGIONAL REALIZATION

The 1960 Comprehensive Master Plan also had a Top-Down approach and was completed during the peak of Flint's population and economy. Many of the Plan's recommendations anticipated further growth and expansion and focused on widening transportation thoroughfares; planning downtown as a central business district; cooperation between various levels of government; and developing a community renewal program for blighted parts of the City However, with WWII and the Great depression came the deindustrialization and overall decline of the city. This plan created infrastructure that was meant to sustain the city's peak population, but the post-industrial effects have left this infrastructure to decay and a city in poverty (Edward McClelland, 2014).

2013 IMAGINE FLINT MASTER PLAN: PLANNING FOR A FLEXIBLE FUTURE

The city didn't update their master plan for over 50 years. The current master plan was implemented in 2013 and is the city's attempts at remediation. Imagine Flint was developed through an extensive community engagement process that involved more than 5,000 residents and community stakeholders. This plan acknowledges the need for neighborhood development through a proposed conceptual zoning framework that introduces new definitions for neighborhoods. This plan does a good job of being more inclusive and up to date by implementing concepts now being tried in other shrinking Rust Belt cities, such as Detroit and Youngstown.

"Interesting and useful insights about connectivity and inequality that reflect new ideas about how close or how segregated and congested people are in cities are being discovered. All this is essential to understanding how information flows both replace and complement material flows of resources that have underpinned the spatial organization of cities hitherto." (Michael Batty, 2008).

Housing & Neighborhoods. 28 October 2013, pp. 7-12. IMAGINE FLINT, Flint, City of Flint, https://app.box.com/s/gryzbghut6jotou5dls2. Accessed 22 August 2021.

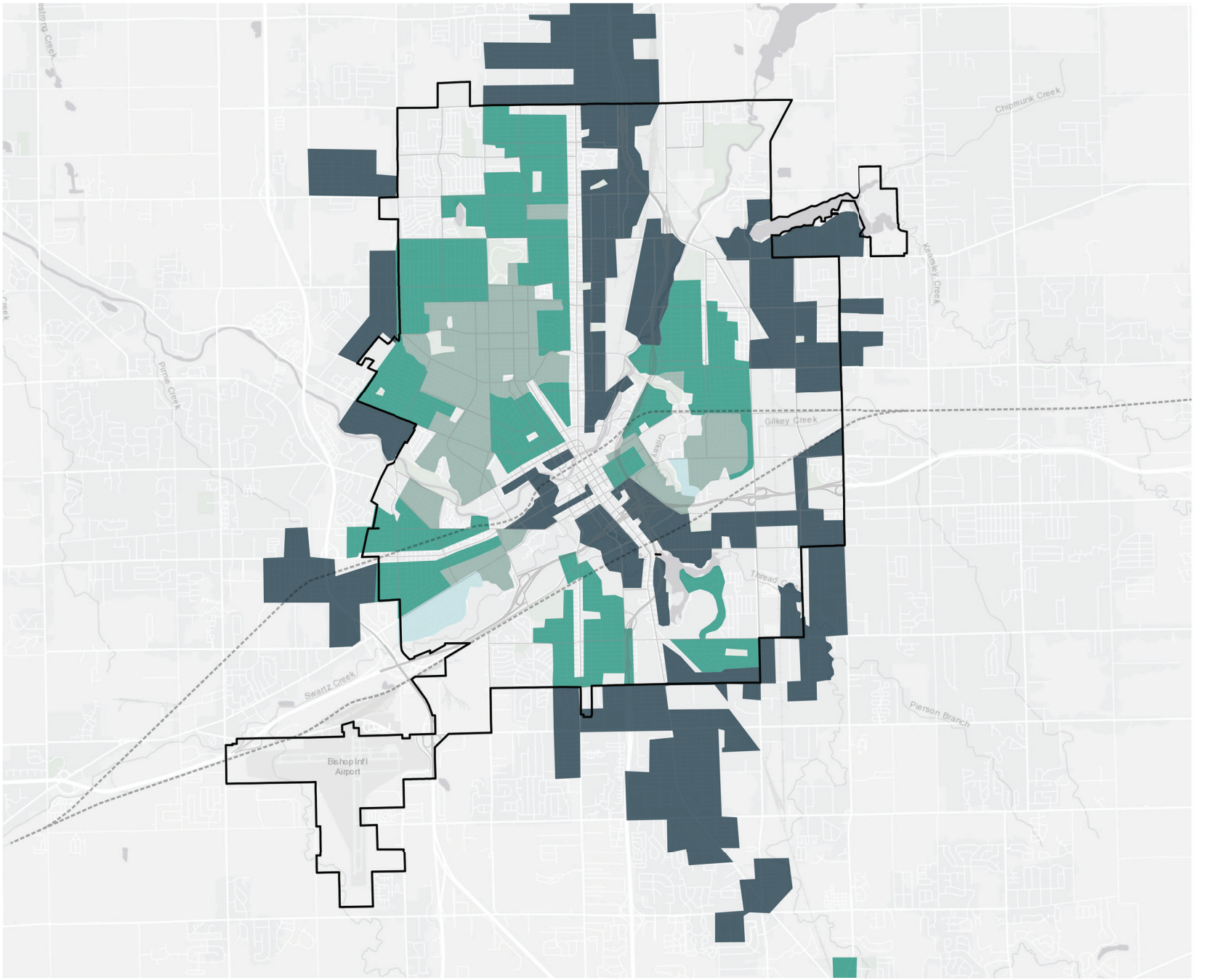


Figure 3.4 - 1960 Redlining

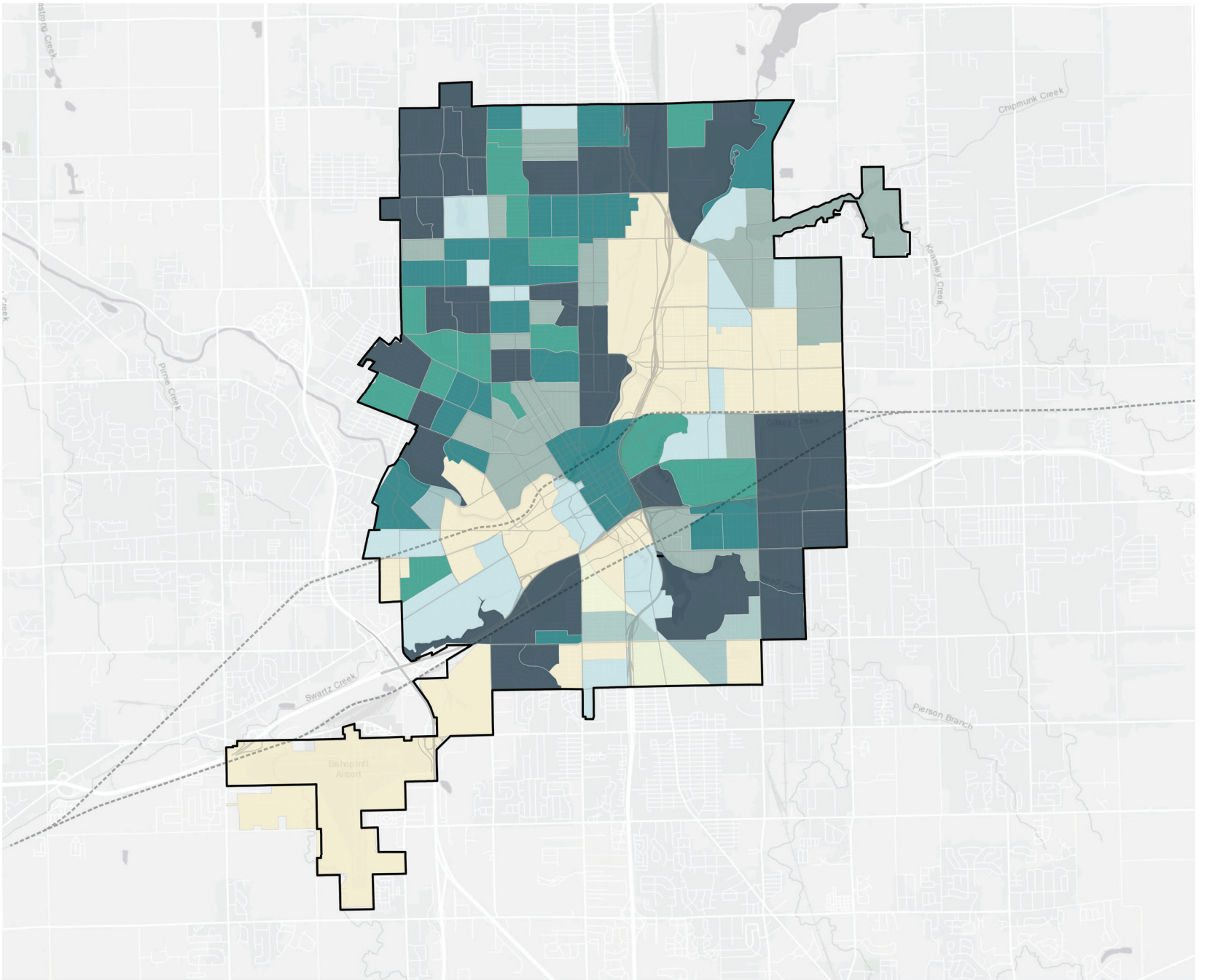


Figure 3.5 - Population Change

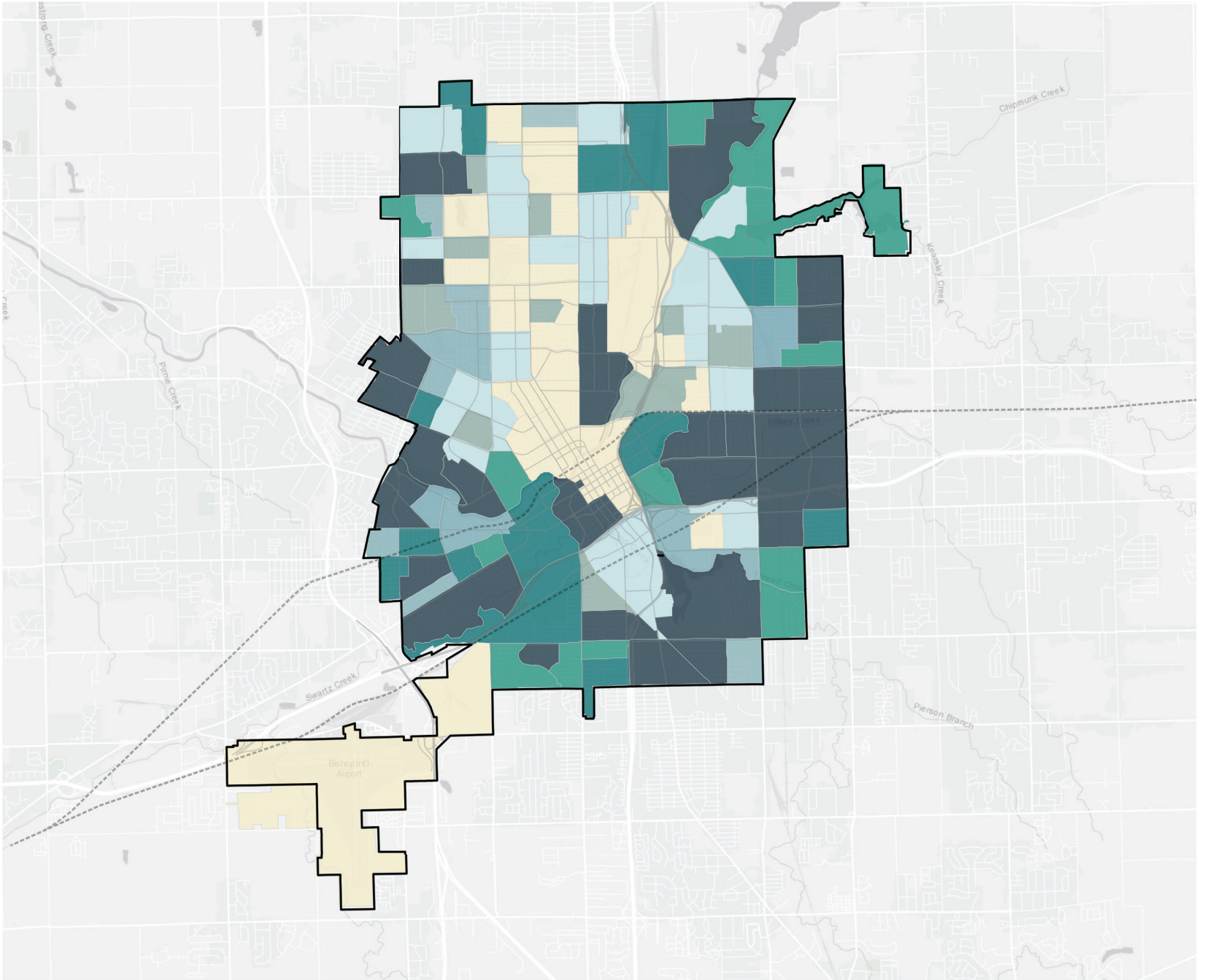


Figure 3.6 - Employment

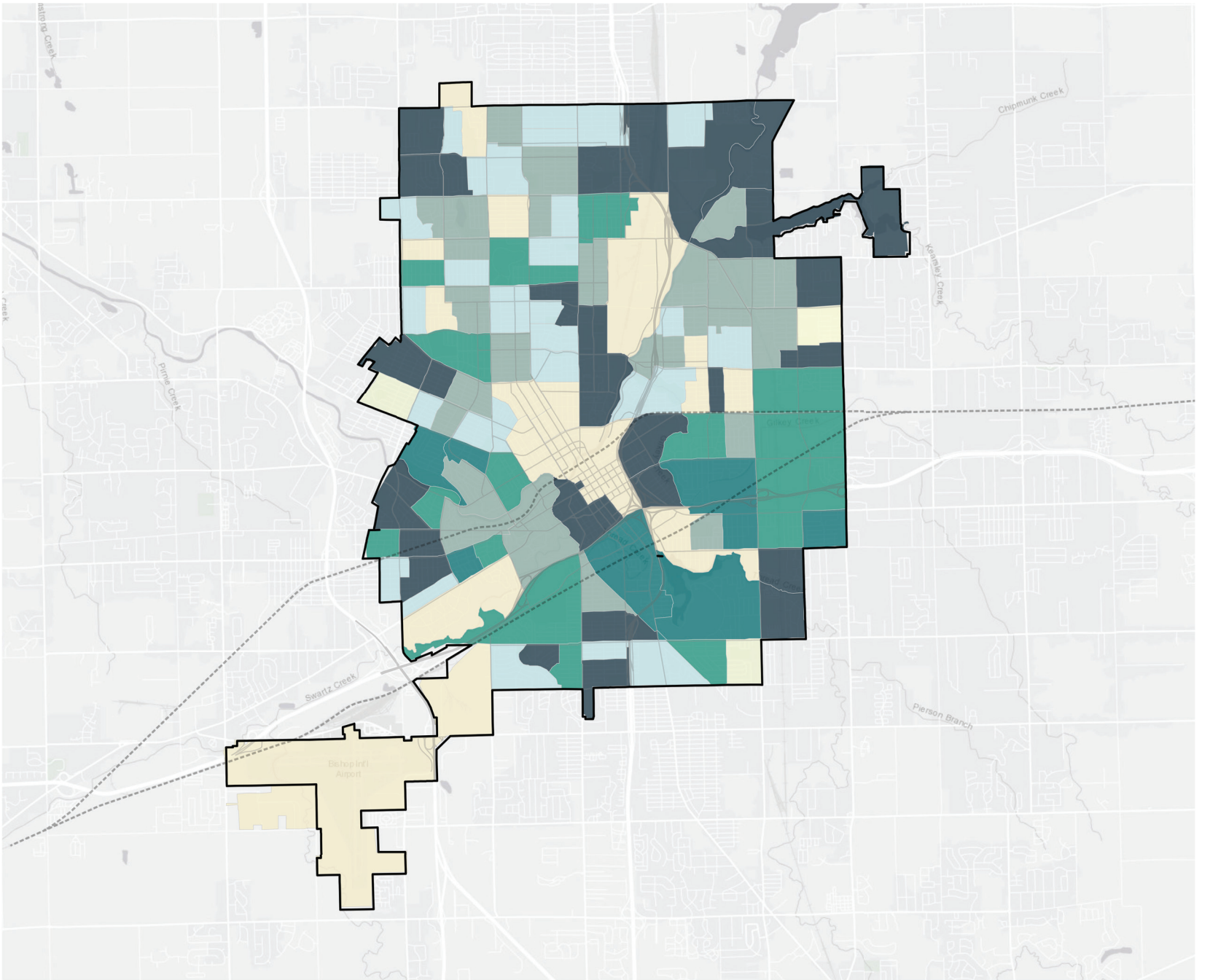


Figure 3.7 - Poverty

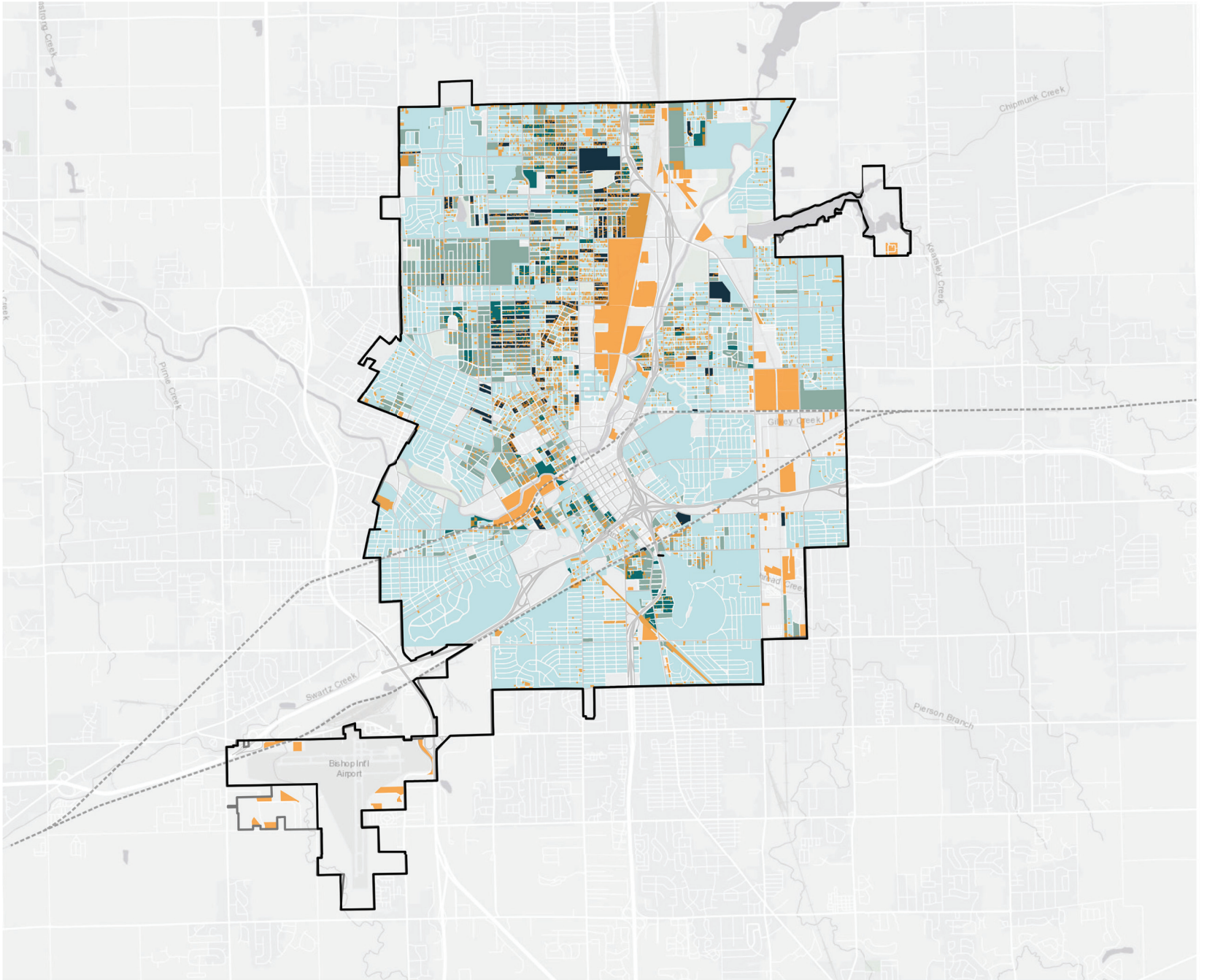


Figure 3.8 - Housing Conditions

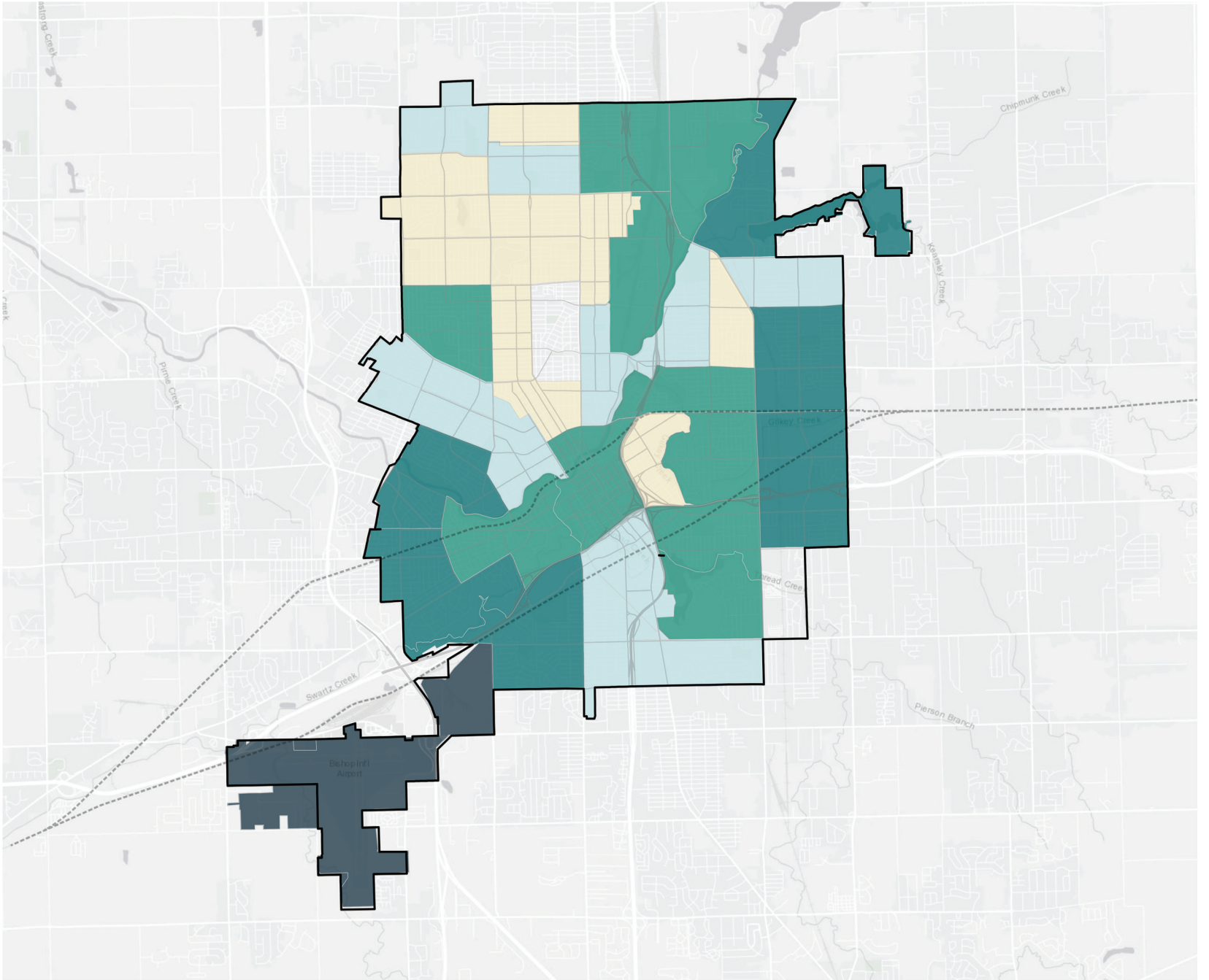


Figure 3.9 - Household Income

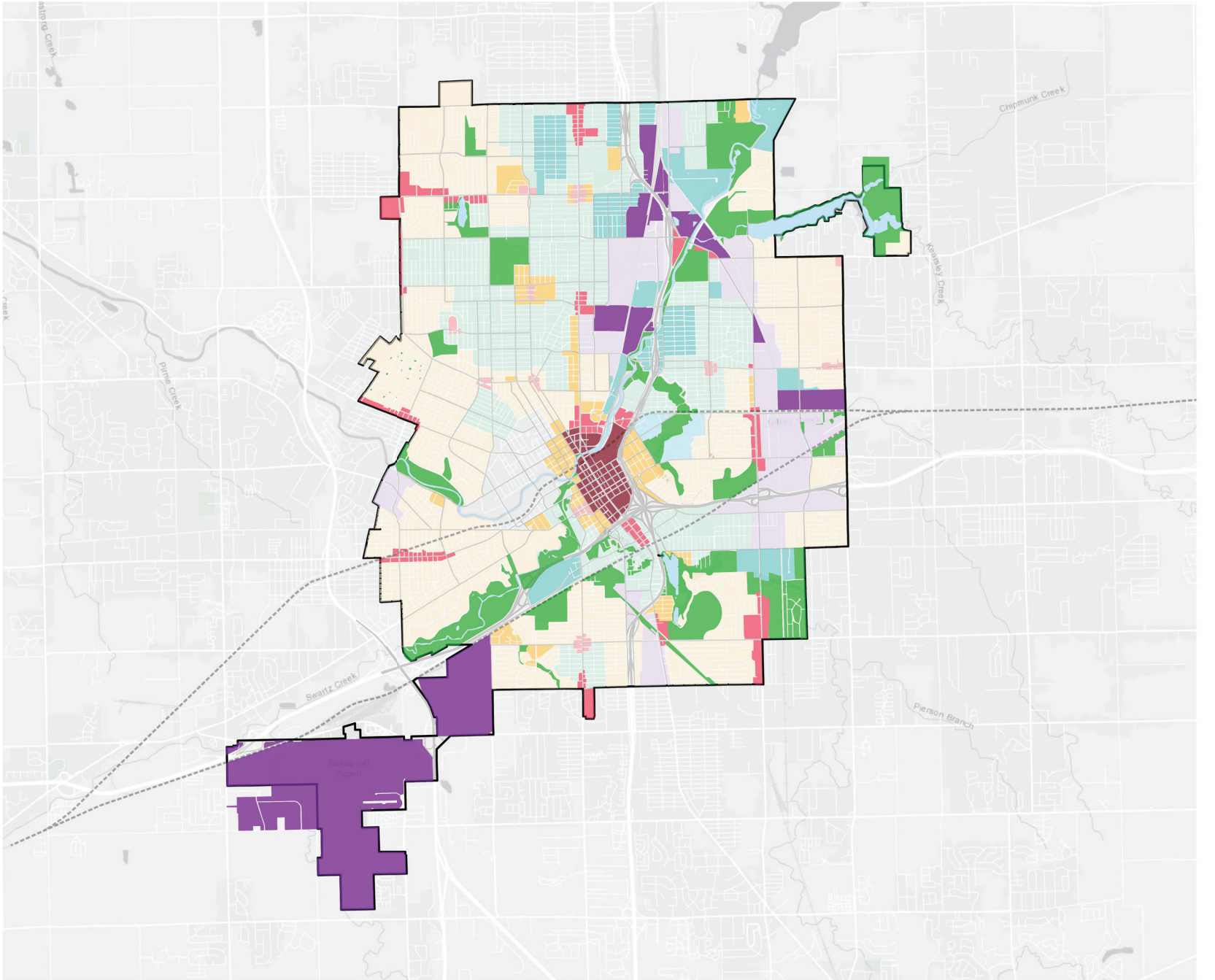


Figure 3.10 - Placebased Land Use

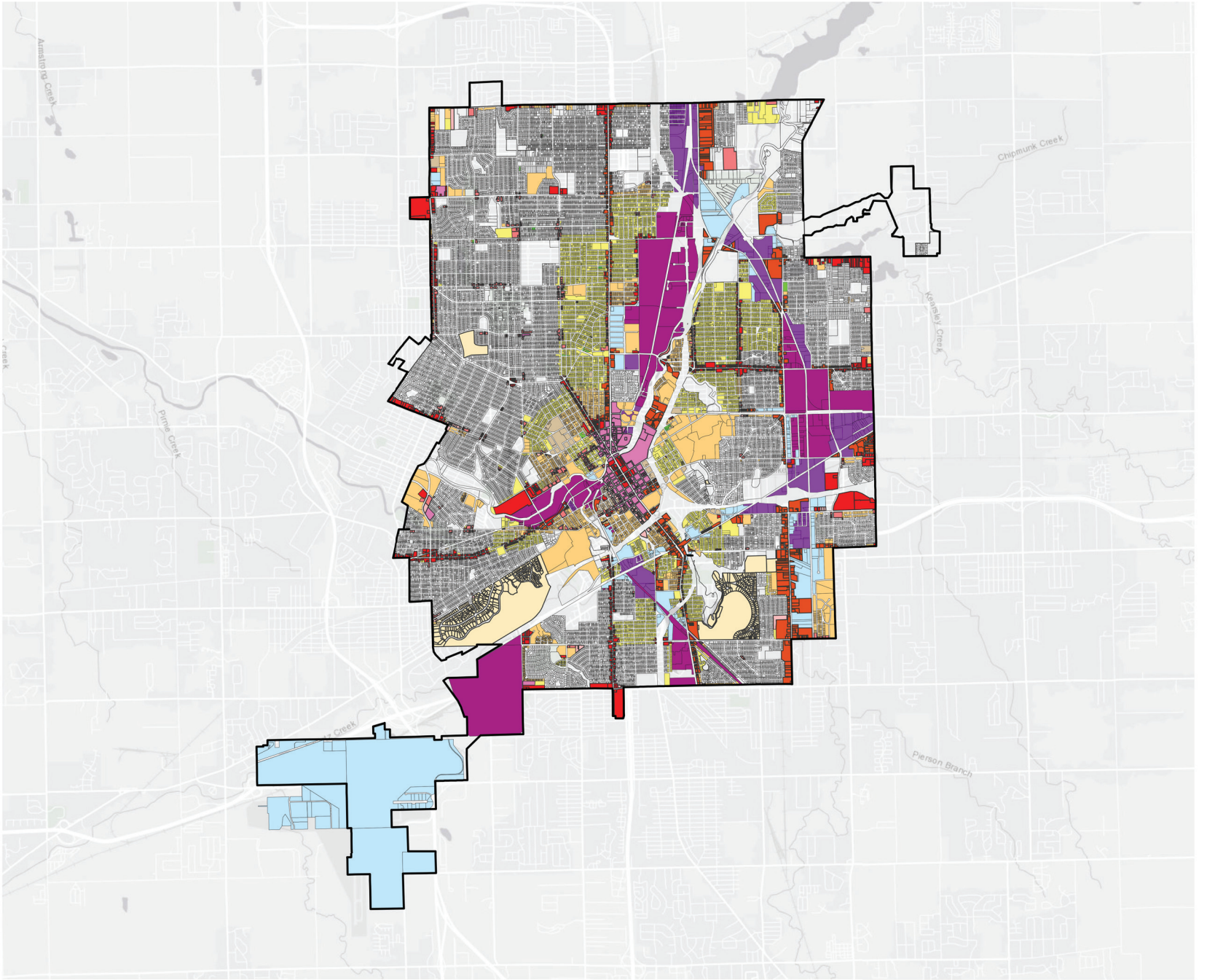


Figure 3.11 - Zoning

FUTURE GOALS

Using the future goals, planning and projected demographics helps guide the direct in which a neighborhood framework plan adapts and responds to changing economies and spatial relationships. This research of the implications of the city's planning, and the role it played in current conditions along with a historic and contextual analysis was necessary to inform the cause and effect of inequity and identify elements that can be leveraged and avoided in future planning.

The city's current goals are to make assets out of its most least appealing qualities, which include transforming vacant land into green spaces that will be used for parks and agriculture. Their hopes of turning vacant land into public green spaces will encourage economic growth, local food production, and other green initiatives. They also plan to recreate neighborhoods as places of innovation and entrepreneurship and communities where residents of all backgrounds share equally in Flint's economic rebirth. The city, with success of the Imagine Flint master Plan, is projected to see the population grow to 150,000 by 2040, an increase in workforce and trade.

The Imagine Flint Master Plan aims to change the City of Flint into a more sustainable, innovative, accessible, and economically vibrant community. It is intended to act as a tool in changing the city's perceived image by promoting its unique assets. This plan was developed to stabilize and direct redevelopment enhancing livability of the City and neighborhoods.

This research of the implications of the city's planning, and the role it played in current conditions along with a historic and contextual analysis was necessary to inform the cause and effect of inequity and identify elements that can be leveraged and avoided in future planning.

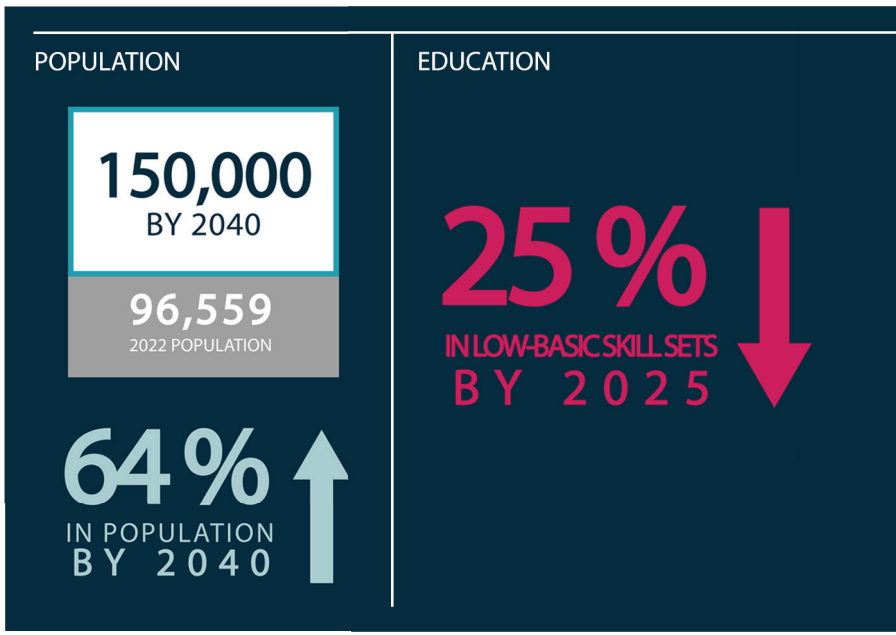
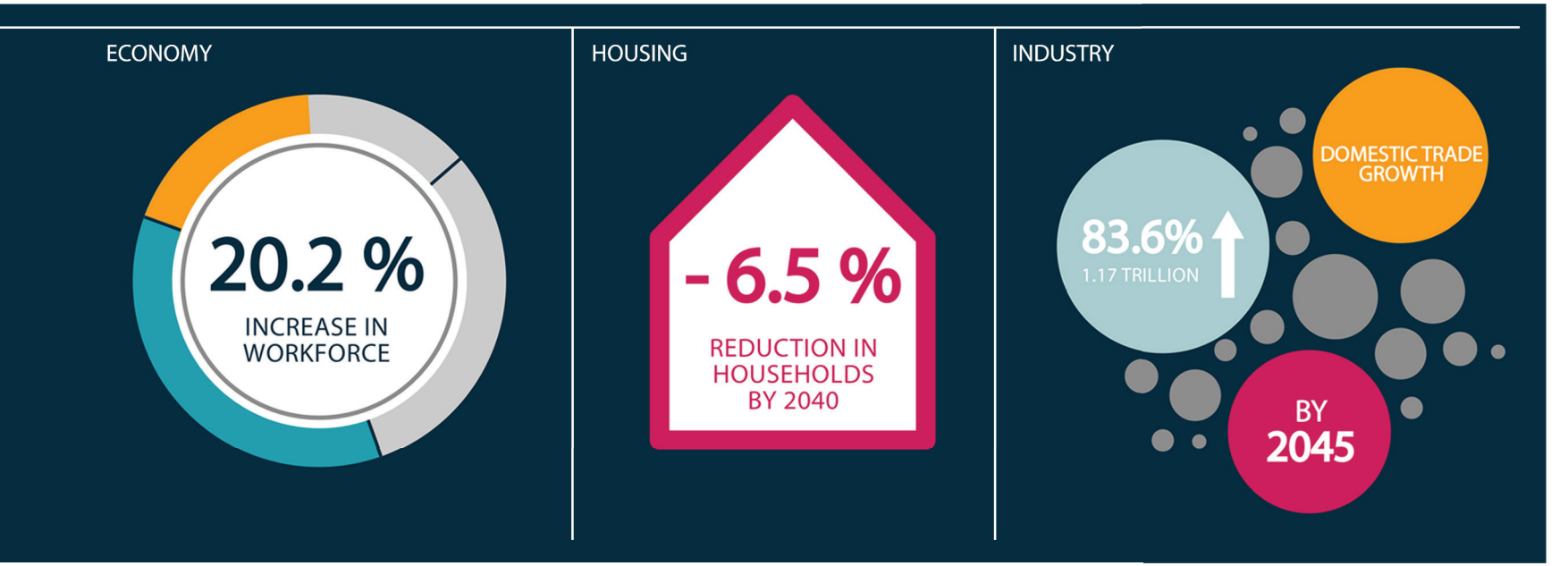


Figure 3.12- Flint Projections

Figure #.# - Figure Title



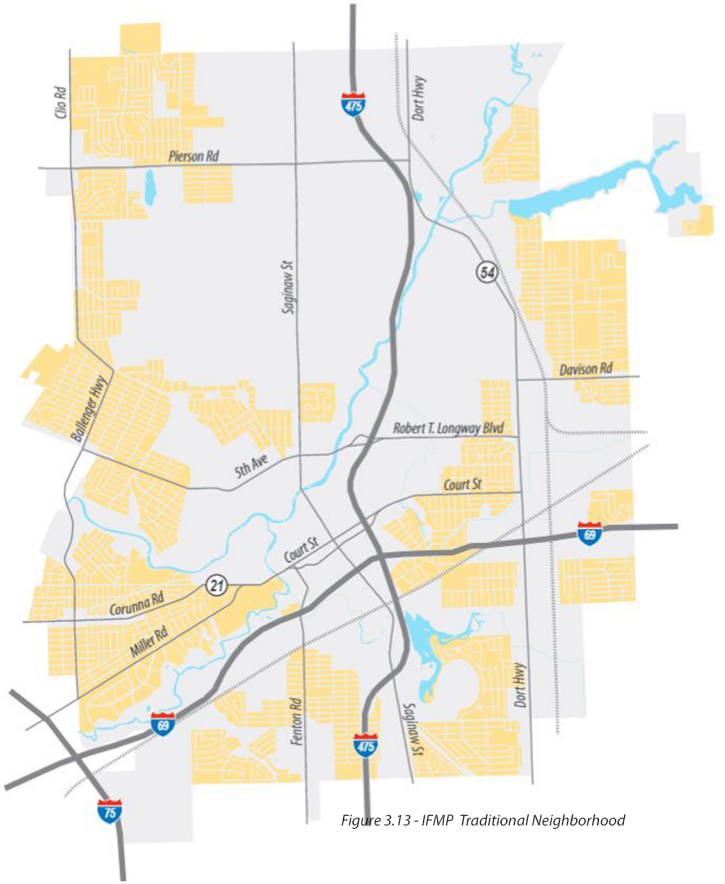


Figure 3.13 - IFMP Traditional Neighborhood

TRADITIONAL NEIGHBORHOOD

Traditional Neighborhoods represent areas where the form and character of Flint's established single family neighborhoods should be maintained and enhanced.

Maintaining a solid core of traditional residential neighborhoods is crucial to ensuring the health of the City, spurring future economic development, and providing high-quality services, including those provided by community partners such as the Flint Community Schools. Priorities within Traditional Neighborhoods should be the stabilization and improvement of housing conditions, encouraging infill development, and mitigating other blighting factors such as crime and poor property maintenance.

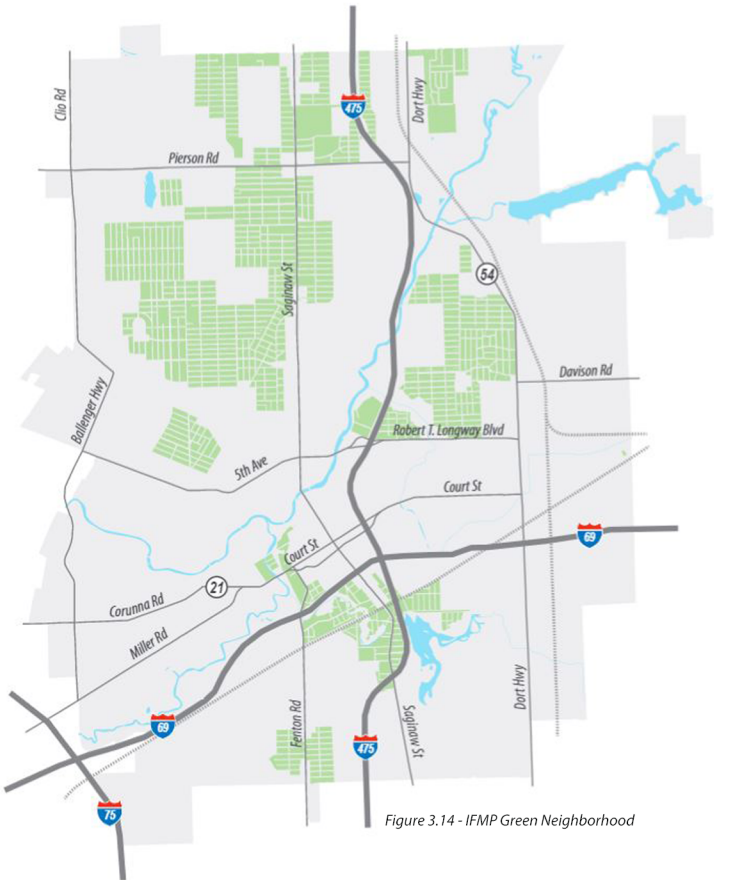


Figure 3.14 - IFMP Green Neighborhood

GREEN NEIGHBORHOOD

Green Neighborhoods are low-density residential areas consisting of a mix of large lot residences, neighborhood open space, community gardens, and limited scale urban agriculture. The Green Neighborhood is intended for residential areas of Flint where targeted demolitions have created a large amount of vacant proper-ties on residential blocks.

The Green Neighborhood place type represents a new approach to re-purposing vacant or under-utilized areas to create a healthy and sustainable low-density residential neighborhood. The City and its partners will empower residents to adopt and care for properties in their neighborhood through changes to development regulations, neighborhood capacity building, and lot improvement programs.

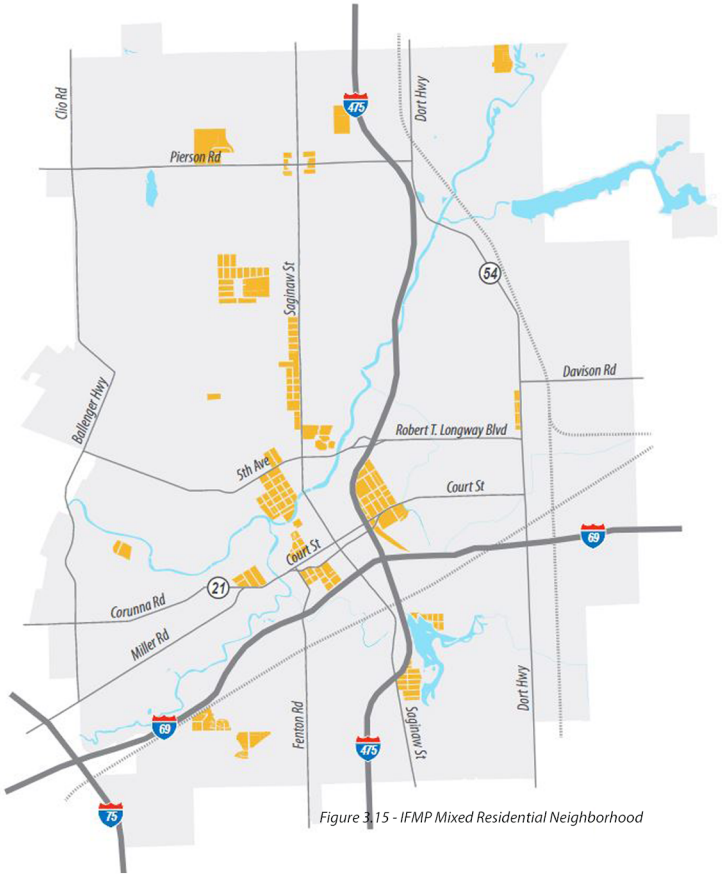


Figure 3.15 - IFMP Mixed Residential Neighborhood

MIXED RESIDENTIAL

Mixed Residential areas are made up of detached single family, attached single family residences (townhomes, rowhomes, etc.) and multi-family buildings. Identified as areas where Mixed Residential areas can be served by nearby commercial districts as well as smaller retailers and service providers that are clustered at key intersections. In some cases, Mixed Residential areas are located adjacent to important natural features

Mixed Residential areas provide a range of housing options for first time home buyers, young families and facilitate "aging in place." Mixed Residential areas also provide workforce housing options – housing that is affordable to "critical service" employees that contribute to the quality of life in the City.

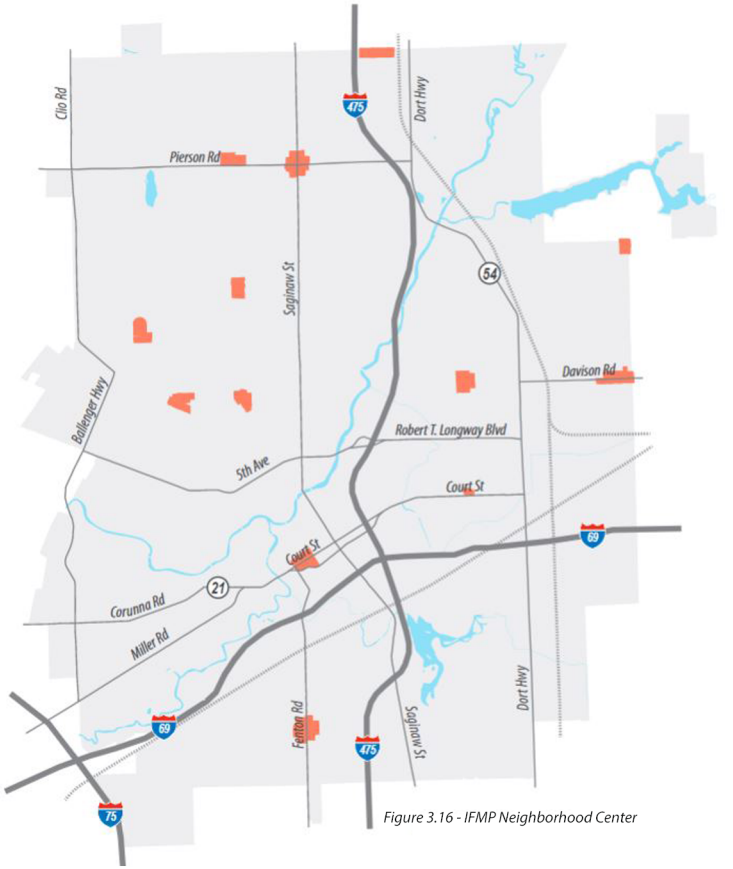


Figure 3.16 - IFMP Neighborhood Center

NEIGHBORHOOD CENTER

A Neighborhood Center is a small commercial district primarily consisting of a mix of local retail-ers, neighborhood institutions, and mixed use development. However, multi-family buildings should also be encouraged within such areas.

As a hub of social and commercial activity for local neighborhoods, the Neighborhood Center place type will play a key role providing daily goods and services to Flint residents and enhancing quality of life. Priorities within a Neighbor-hood Center should be the instal-lation and proper maintenance of streetscape and pedestrian infrastructure, improvement of commercial property conditions, and small business assistance.

Housing & Neighborhoods. 28 October 2013, pp. 7-12. IMAGINE FLINT, Flint, City of Flint, https://app.box.com/s/gryzbghut6jotou5dls2. Accessed 22 August 2021.

CHAPTER 4:
THE ROLE OF COMMUNITY ENGAGEMENT IN NEIGHBORHOOD NETWORKING

ROLE AND RESPONSIBILITY OF THE INDIVIDUAL

After defining the scales, networks and dimensions of urban planning, another important concept to understand the role and responsibility of the individual and how essential community engagement is in the contribution of equity. In conjunction with the extents and relationships within a city, this study also investigates methods of community development and the role of community engagement in the planning processes. As previously stated, the residents and communities are the foundation of cities and must therefore be supported equitably through urban planning.

'Community engagement' is a strategic process with the specific purpose of working with identified groups of people, whether they are connected by geographic location, special interest, or affiliation to identify and address issues affecting their well-being. It is a powerful vehicle for bringing about environmental and behavioral changes that will improve the health of the community and its members It often involves partnerships and coalitions that help mobilize resources and influence systems, change relationships among partners, and serve as catalysts for changing policies, programs, and practices. Community engagement empowers residents with connections, information, accessibility, and self-governance through a network of interactions and is crucial in successfully leveraging collaboration and networking in the development of equitable planning strategies. Cities ultimately grew because of people, those particular people who chose to migrate to, or trade with, particular places for whatever reason. Natural advantages generate only the potential for economic (MIchael Batty, 2008) development and urban growth. Something or someone else has to make it happen.

Participation is a community's first step in networking and influencing urban planning. Just as urban planning has a responsibility to serve the welfare of a city, residents also have roles and responsibilities, one of which being participation in urban planning and its subsequent processes. This interaction in the urban planning processes ensures equity, social capital and collaborative problem solving. Resident driven community development at a neighborhood scale allows communities to act separately and collaboratively to reverse the negative effects of years of disproportional planning and allow them to reintroduce equity together.

Connecting 'community' and 'engagement' broadens its scale and network, changing the scope from individual to collective, with associated implications of inclusivity in consideration for the diversity offered in every community.(Penn State College of Agricultural Sciences, 2018). In the same way scale and network respond to one another, community engagement is a system of networks that appear at various scales of a city that respond to conditions influenced by scaled functions and developments.

Diverse communities and movements are interconnected and mobilized through shared knowledge, platforms and collective action. The use of participatory planning to prompt critical engagements between people, technology and the urban environment are crucial and enable the production of creative expressions of local issues for and by residents. This is important because there are countless cities throughout the United States that are still in a state of decline and communities struggling to overcome the limitations created through urban planning.

The development of strong partnerships involving local citizens and municipalities are essential in planning methods and strategies being equitable. These relationships created through networking strengthen the resilience of individuals, neighborhoods, cities, and have the potential to influence regional and global affairs. This synergy establishes vital connections with resources like local institutions, federal and non-profit organizations aid and can help reintroduce necessary resources in disinvested areas encouraging resilience and sustainability throughout neighborhoods. Dense networks of connections reveal interdependencies between neighborhoods and encourage consistent interaction and engagement in the planning process leading to equitable planning in the future. Community participation in the urban planning processes ensures efficacy of strategies and collaborative solutions. In the case of neighborhood networking, it is at the center of all planning, development and equity within neighborhoods and cites overall.

Examples of community engagement occur at many scales and create complex social networks that connect information, people, places, and ideas. Participation in community engagement can be at the individual scale all the way to the city scale where their forms and functions vary based on condition. "..most systems are not 'manufactured', but are 'grown'. They evolve through countless decisions that have an impact on many scales…"(Michael Batty, 2013).

“Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody ”
- Jane Jacobs

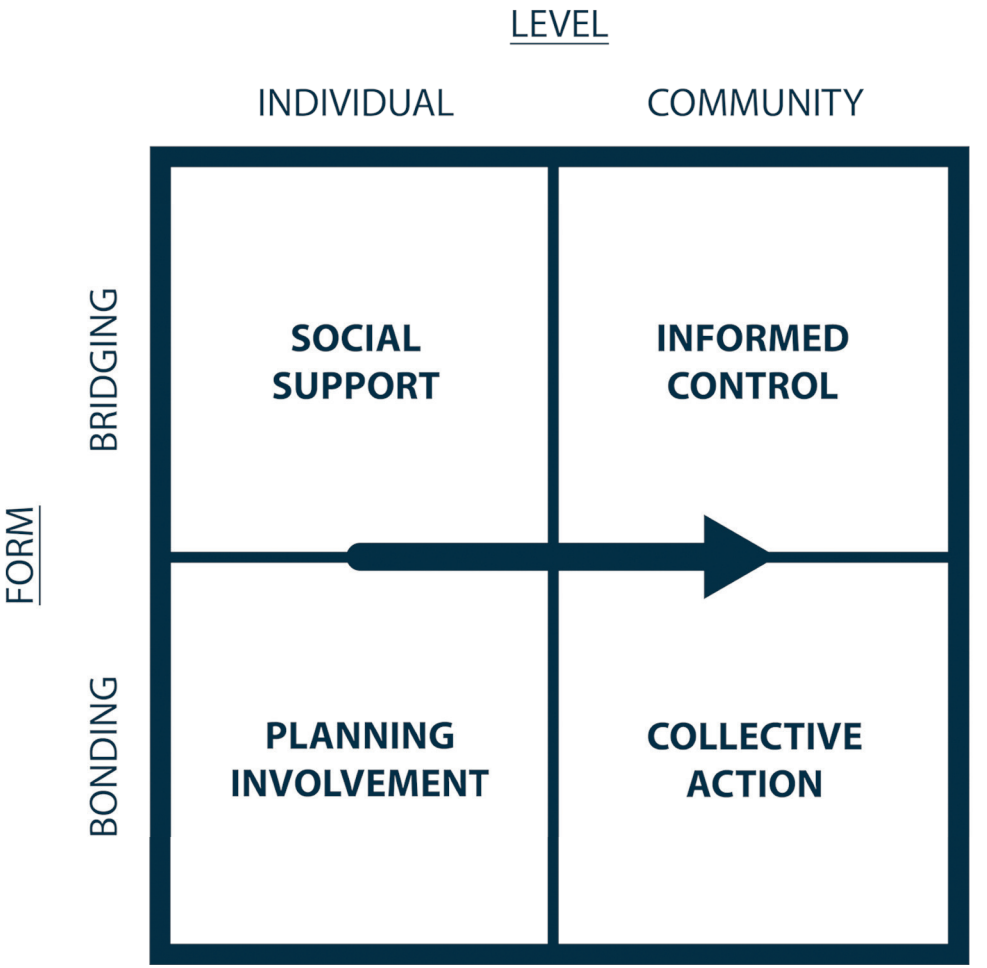


Figure 4.0 - Forms and Levels of Social Capital

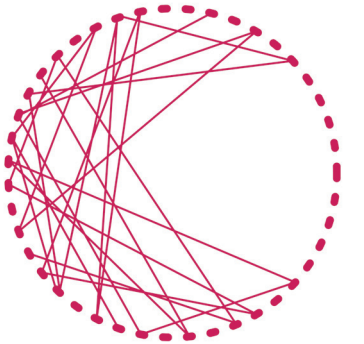


Figure 4.1 - Low Community Engagement

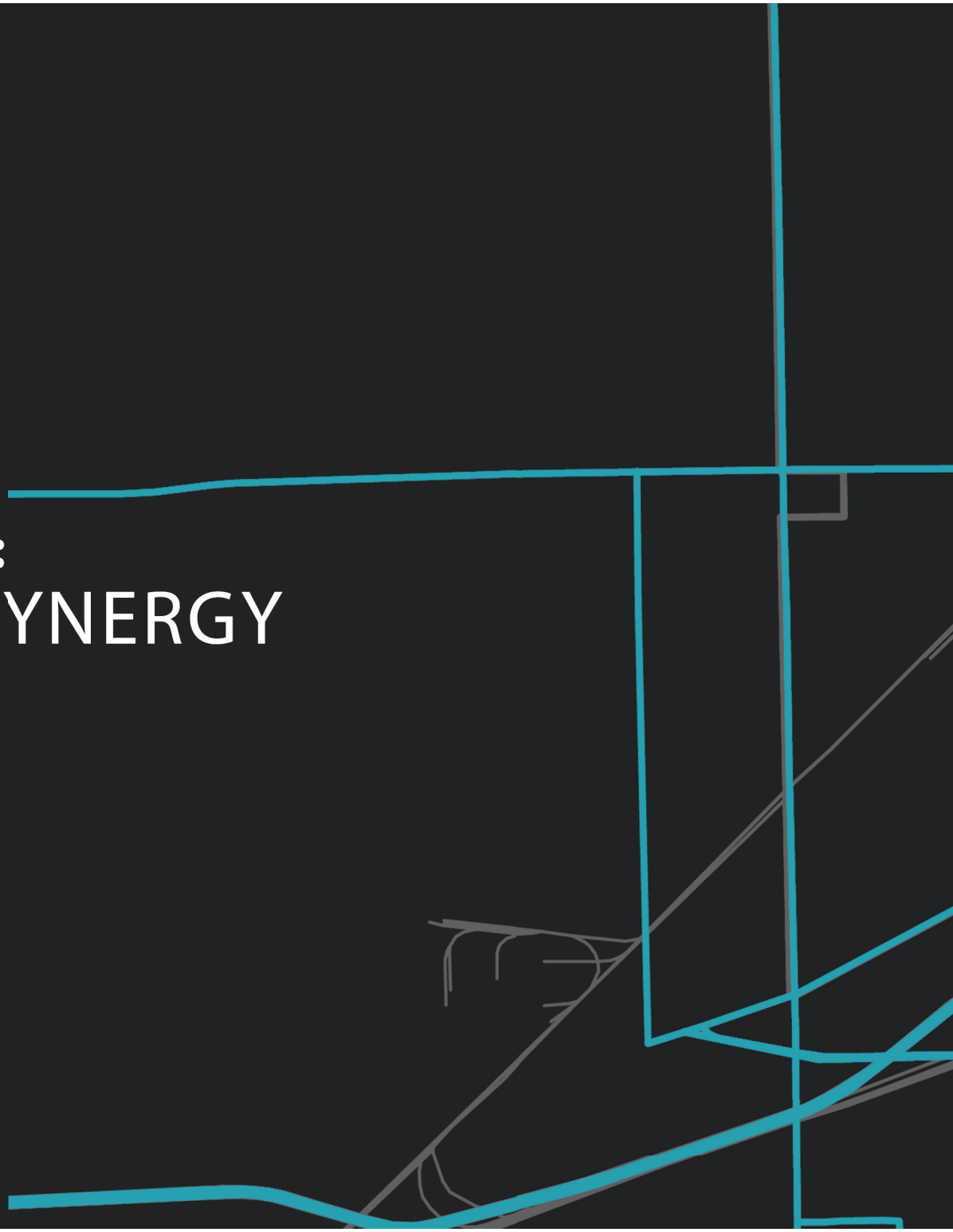
Figure 4.2 - Mixed Community Engagement

Figure 4.3 - High Community Engagement

ICE MOUNTAIN
100% NATURAL SPRING WATER
24

Figure 4.4 - Images Representing Community Engagement in Flint MIchigan

CHAPTER 5:
URBAN SYNERGY



UNDERSTANDING URBAN SYNERGY

The first steps in this research was to understand and begin to conceptualize urban synergy. What this means is understanding how people and places interact through networking and how these interactions influence and materialize in social and physical settings.. Conventional urban planning views the city as places, spaces, and locations that people use, however, when you introduce the concept of networking cities become a structure of interaction, transaction and action Figure #.#. The perception in conventional urban planning both inadvertently and strategically creates boundaries between places, spaces and locations that can inadvertently create divisions in economic, social, and political aspects of a city.

The concept of networking begins to break down these boundaries of separation and division because there is so much potential for the opportunity for interaction, transaction and action within a city. Envisioning a city, or any other urban setting at any scale, transforms spaces, places and locations into interconnected systems that maintain a steady flow of interaction, transactions and actions amongst residents, organizations and municipalities. This synergy paves the way for consistent development. A networked urban setting creates a synergy between interactions, transactions and actions in a way that allows for a consistency in planning and development that is both present and equitable.

City's are complex systems of networks of connections that synergize in a social or physical environment be they political, economic or environmental (Silvio Cristiano, 2020). These systems of interactions act as drivers of self organization, 'following patterns of operation that are intrinsically systemic.

Interactions are reciprocal actions that are defined by the events of communication or synergies of activities involving people or objects that as a result affect one another.

Transactions are defined as an exchange or interaction between two entities. In the case of networked urban settings, it is defined as collaborative transfer of knowledge, ideas, or trade skills for the welfare of a community.

Action is the end result of interactions and transactions. Typically defined as the process of doing or finishing something in the means to achieve an aim. When merged with urban networking this is the resulting collaborative efforts defined through interactions and transactions that benefit the social and physical environments, often done over a period of time.

These kinds of interactions are present in all facets of a region, city, and neighborhood. This investigation outlines the interactions, transactions and actions that take place through community engagement and participatory urban planning at the neighborhood scale.

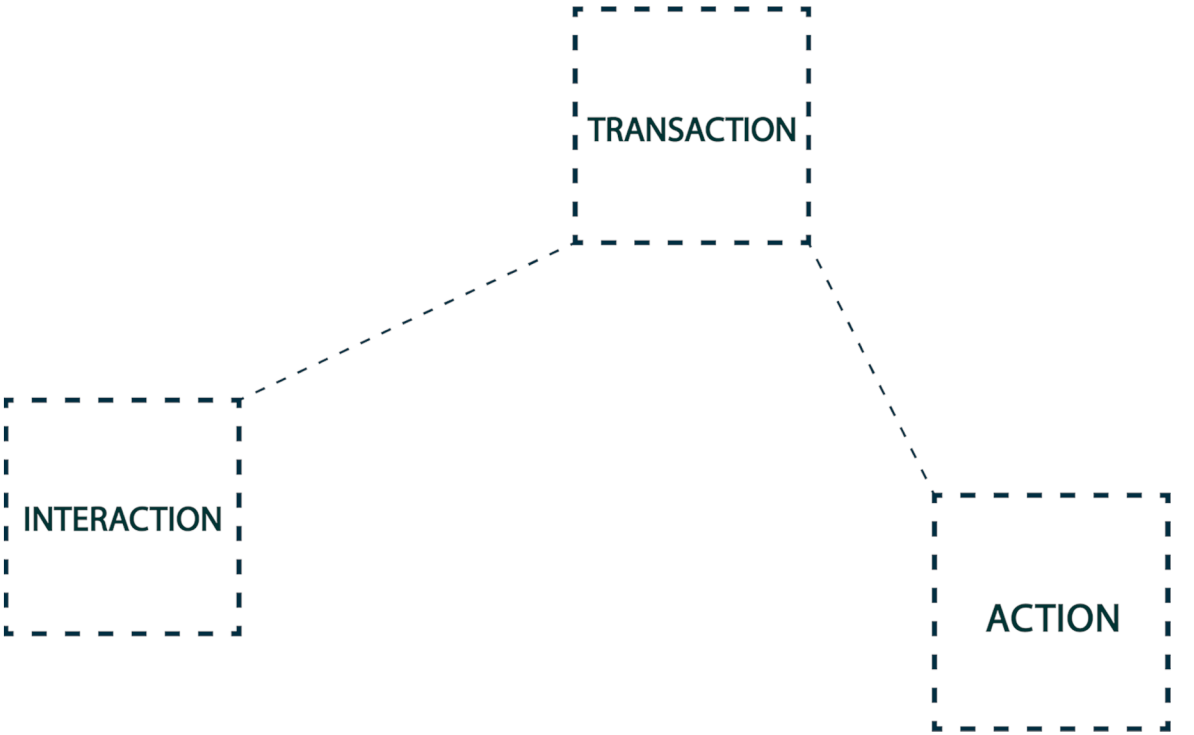


Figure 5.0 - Urban Network Synergy Diagram

Figure 5.1 - Urban Network Synergy Interaction Visualization

INTERACTION SYNERGY

NETWORKING

Deliberative Dialogue
Projects that intentionally bring people together to build understanding across differences.

Community Building
Projects that intentionally bring people together to simply get to know one another.

Community Organizing
Projects that bring people together with the goal of solving a community issue.

PLANNING

Careful planning and Preparation
Through adequate and inclusive planning, ensure that the design, organization, and convening of the process serve both a clearly defined purpose and the needs of the participants.

Inclusion and Demographic Diversity
Equitably incorporate diverse people, voices, ideas, and information to lay the groundwork for quality outcomes and democratic legitimacy.

"Types of Community Engagement | Student Life." University of Minnesota Morris, 2022, https://students.morris.umn.edu/community-engagement/types-community-engagement. Accessed 23 November 2021.

Figure 5.2 - Urban Network Synergy Transaction Visualization

TRANSACTION SYNERGY

NETWORKING

Community Education
Projects that provide instructional services or curricula, or serve to educate the public about a social issue.

Direct Service:
Projects that provide a service or product to an individual, group, or the community as a whole.

Institutional Engagement
University resources intentionally offered without undue barriers to the community.

PLANNING

Collaboration and Shared Purpose
Support and encourage participants, government and community institutions, and others to work together to advance the common good.

Openness and Learning
Help all involved listen to each other, explore new ideas unconstrained by predetermined outcomes, learn and apply information in ways that generate new options, and rigorously evaluate community engagement activities for effectiveness.

Transparency and Trust
Be clear and open about the process, and provide a public record of the organizers, sponsors, outcomes, and range of views and ideas expressed.

Figure 5.3 - Urban Network Synergy Action Visualization

ACTION SYNERGY

NETWORKING

Economic Development
Projects that work on developing the regional economy in a sustainable way.

Engaged Research
Research that directly benefits the community by clarifying the causes of a community challenge, mapping a community's assets, or contributing to solutions to current challenges and also fits a faculty member's research agenda.

PLANNING

Impact and Action
Ensure each participatory effort has real potential to make a difference, and that participants are aware of that potential.

Sustained Engagement and Participatory Culture
Promote a culture of participation with programs and institutions that support ongoing quality community engagement.

"Types of Community Engagement | Student Life." University of Minnesota Morris, 2022, https://students.morris.umn.edu/community-engagement/types-community-engagement. Accessed 23 November 2021.

URBAN NETWORK TYPOLOGIES

City's are complex systems of networks of connections that synergize in a social or physical environment be they political, economic or environmental (Silvio Cristiano, 2020). These systems of interactions act as drivers of self organization, 'following patterns of operation that are intrinsically systemic.

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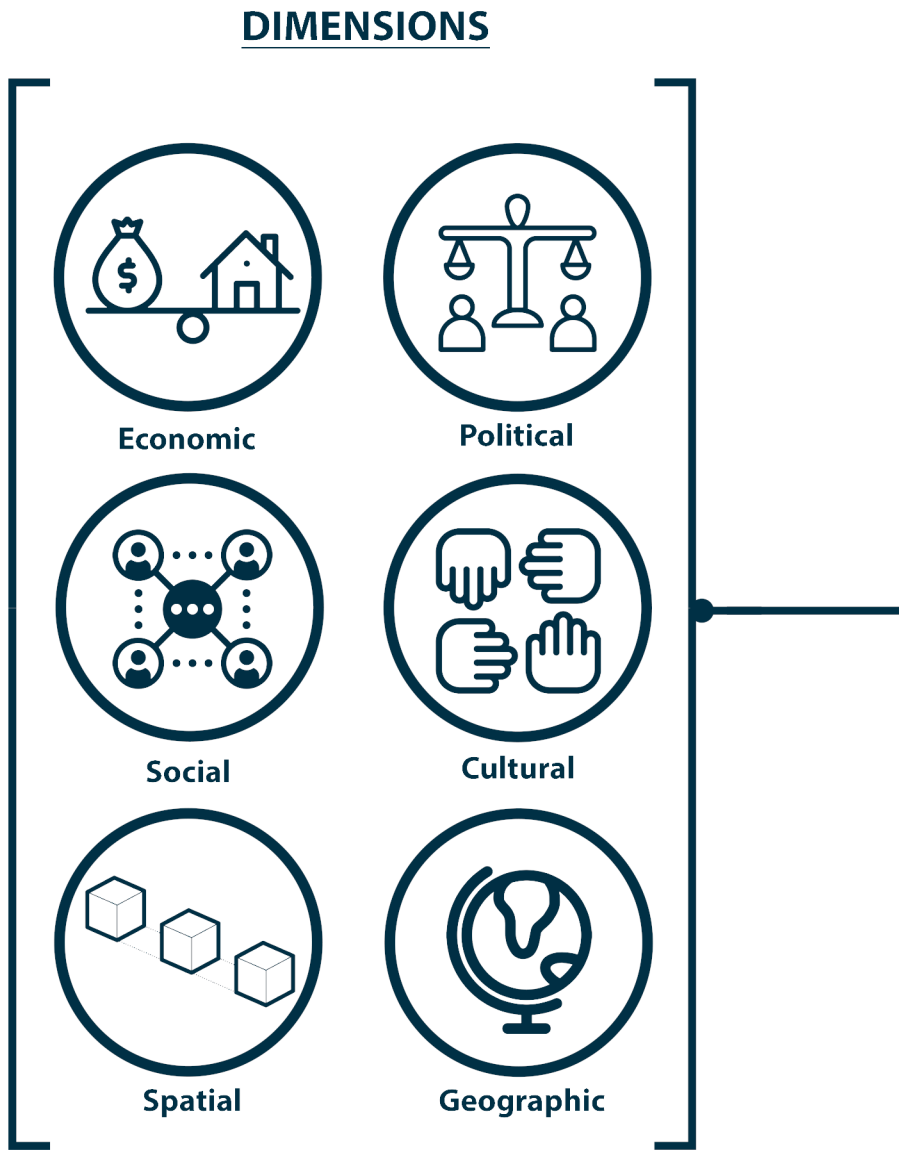
Action is the end result of interactions and transactions. Typically defined as the process of doing or finishing something in the means to achieve an aim. When merged with urban networking this is the resulting collaborative efforts defined through interactions and transactions that benefit the social and physical environments, often done over a period of time.

In order to better understand equitable urban and neighborhood planning we need to break down urban planning into components, outline how they are connected, understand how these strategies are digested within a city and where.

In order to understand cities we must understand them not simply as places in space but as systems of networks and flows. We must understand flows, and to understand flows we must understand networks - the relations between objects that compose the system of the city. Doing so will allow us to better evaluate how large scale planning can be applied equitably at the smaller scales of the city.

Utilizing a methodological reduction will help identify issues in urban planning in the conduct of research with the aim to improve planning methodology. Interactions inside these networks, can materialize physically or socially, and allow for the transaction of resources in material, informational and human forms.



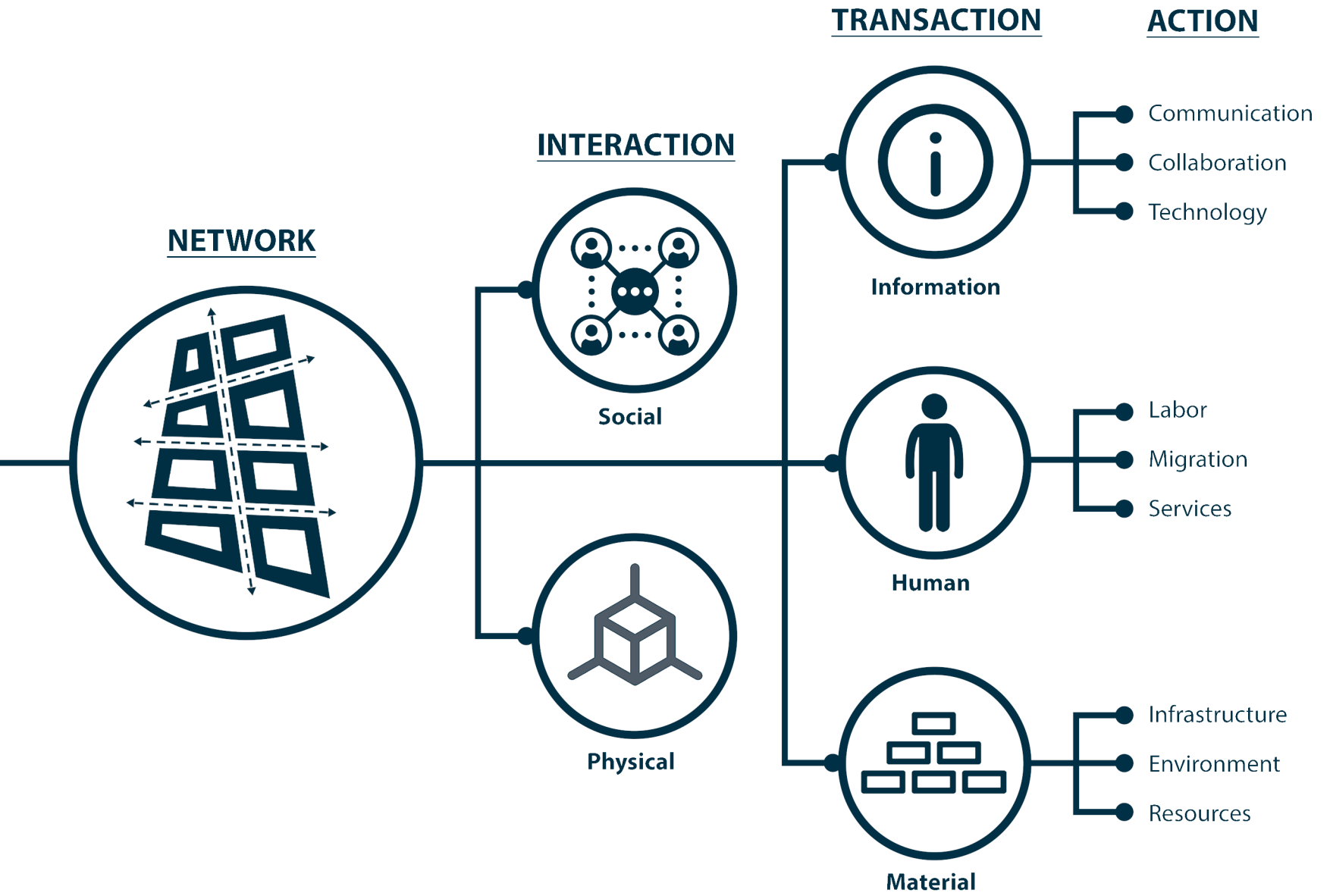


Figure 5.4 - Form and Function of Urban Network Typologies

URBAN CONNECTIONS

The complex systems of networks that make up most urban fabric can be broken down into four categories; social, spatial, economic and political. To better understand how networks materialize and present themselves in an urban setting this section analyzes the work done by Zachary P. Neal's in *The Connected City: How Networks are Shaping the Modern City*. A relational synopsis to Neighborhood Networking is provided. This is important in creating a networked neighborhood framework plan that leverages connection so that it maintains consistent interaction and community engagement.

Social

Neal's Network Structure and Social Capital representations show the beginning of a bare bones structure of Neighborhood Networking. Simple casual interactions between residents create a connection between diverse communities leading to a new accessibility to resources.

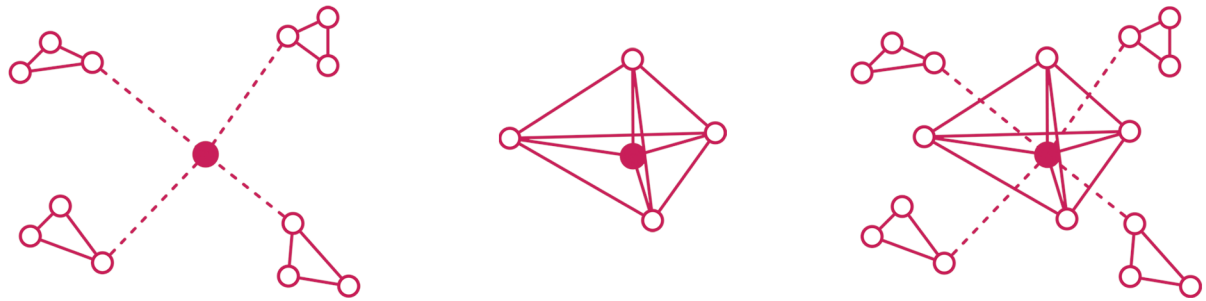


Figure 5.5 - Network Structure and Social Capital

Spatial

This visualization shows how the synthesis of land use and street scape networks lead to flexible and diverse networks. In the case of post-industrial Flint, this diagram provides a unique opportunity to leverage the of use the available green spaces and vacancies inside the city.

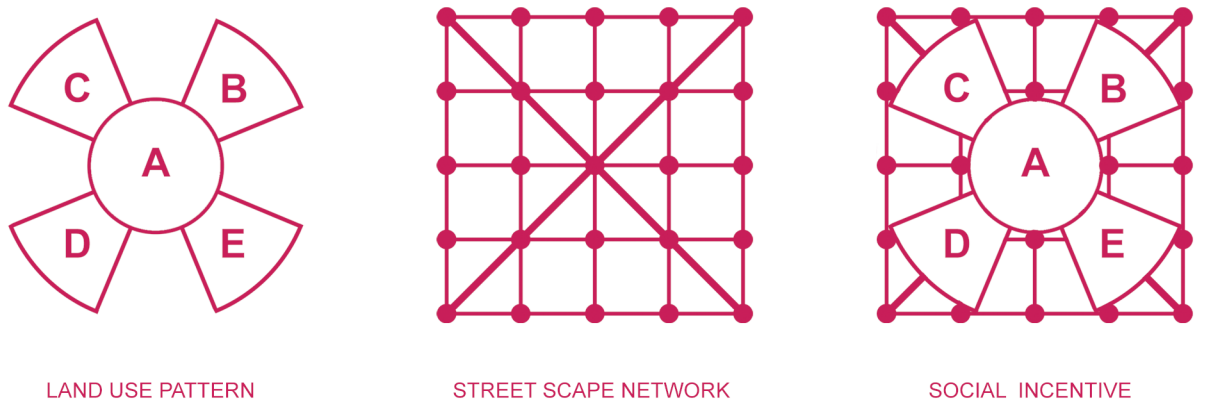
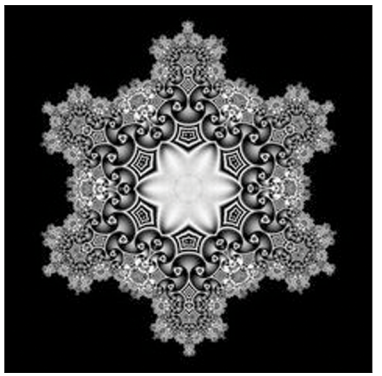
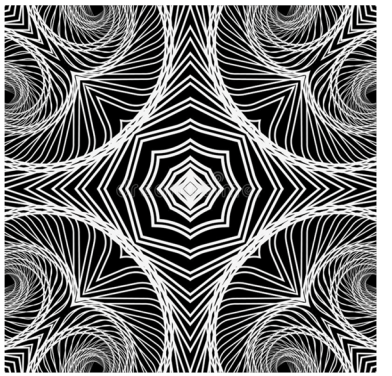
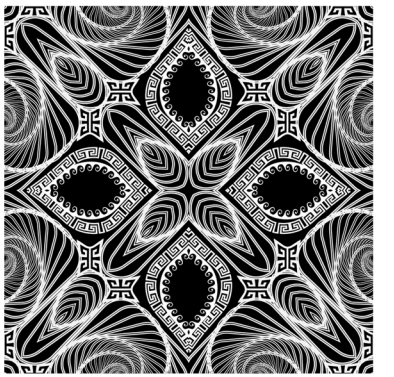


Figure 5.6 - Synthesis of Zachary P. Neal's Street Networks and Urban Land Use





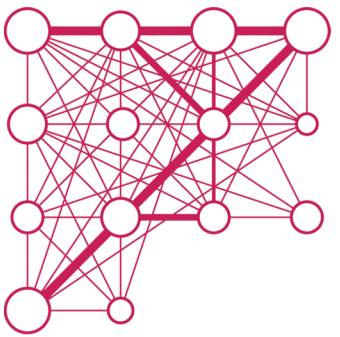


FRACTAL PATTERNS

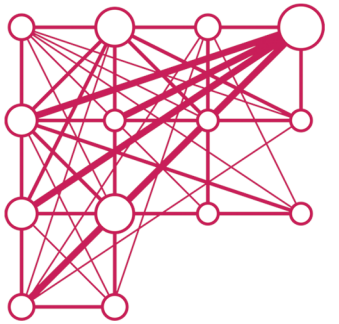
Economic

"Location at the economic edges of urban society can impact the organization of one's social network and community." The economic networks are similar to fractal patterns in the way that they repeat themselves no matter how big or small. Economic factors appear at all urban scales and must be considered .

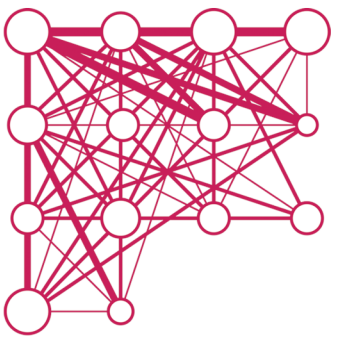
Figure 5.7 - Urban Economic Structure



PROBLEMS THROUGH POLICY



PROBLEMS THROUGH
COMMUNITY ENGAGEMENT



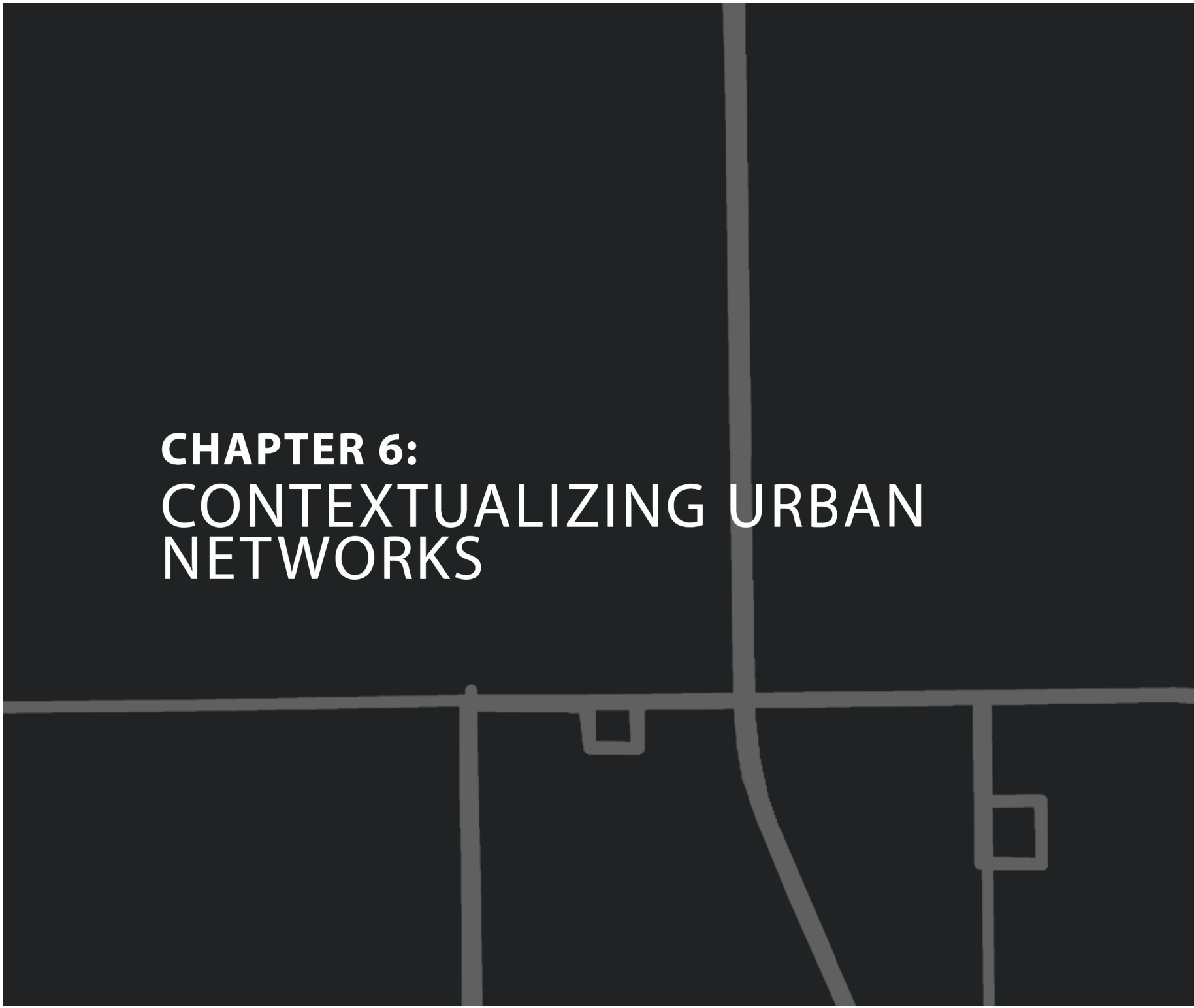
PROBLEMS THROUGH POLICY
& COMMUNITY ENGAGEMENT

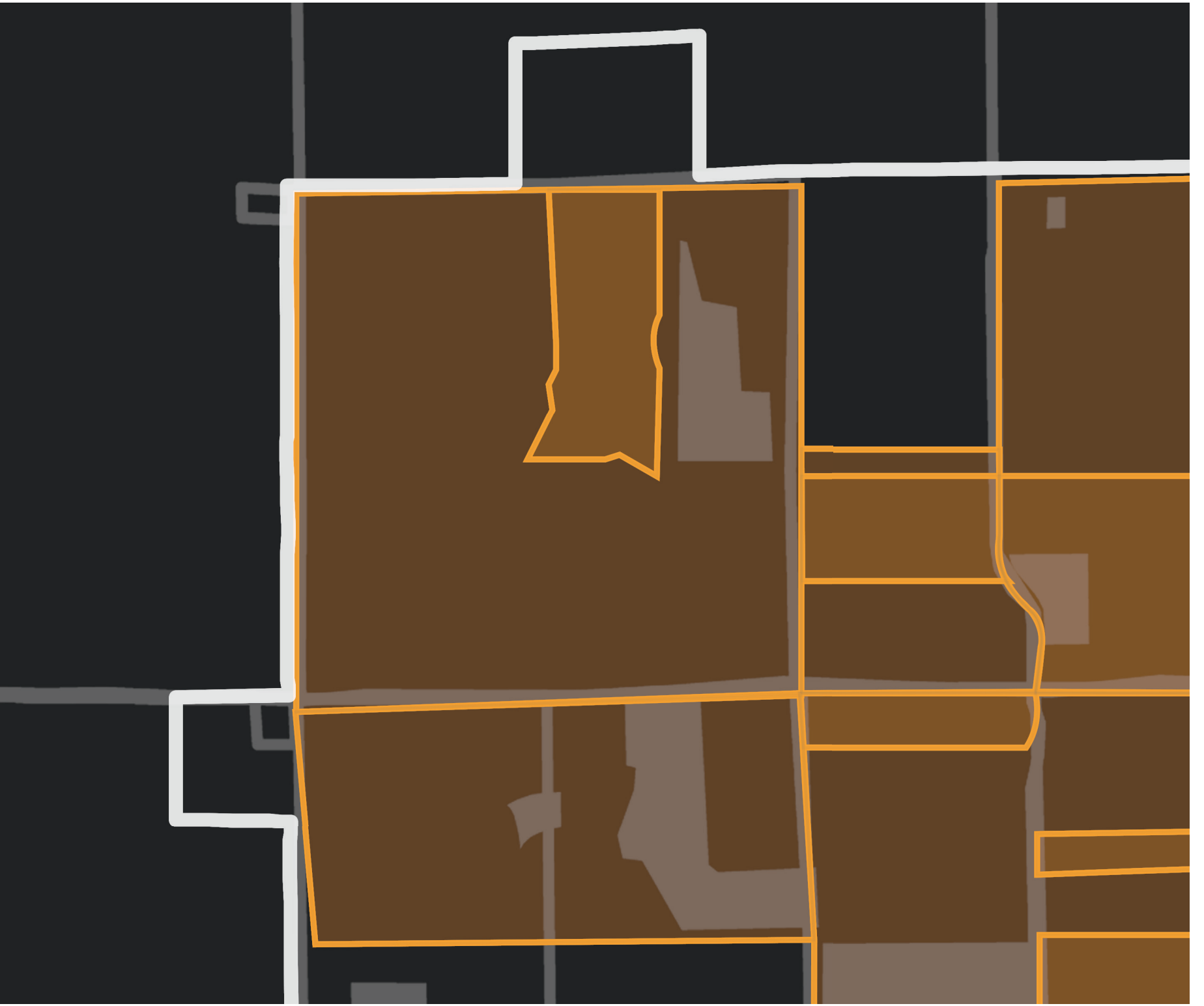
Political

Neal states "Cities are governed by elites" and these diagrams represent the political structure of the city when governed through plurality or in the case of neighborhood networking, community engagement. Problem solving, like equitable urban planning is more likely to come to resolution through community participation in governance or urban planning.

Figure 5.8 - Urban Political Structure

CHAPTER 6:
CONTEXTUALIZING URBAN NETWORKS





Social, spatial, economic, political, this investigation will show how social, spatial, economic, political relationships are integrated within urban networks. These connections contribute an analytical framework for understanding social and physical interactions within an urban setting. Creating maps and diagrams of these networks at various scales aids research so that the interactions, transactions and actions of these networks can be discerned and used to direct development of the Neighborhood Networking Framework Plan.

For example, global networks are primarily involved with communication, policy and trade networks, regions are connected through interdependencies and other commonalities such as agriculture, time zones, identity and emerging mega regions and even differences create connections with regions. Cities are connected through physical transportation infrastructures, the labor market, and topographical features. As urban scales get smaller the more hardscaped and directly influence-able these networks become.

Neighborhoods are connected at a personal and individual level. Meaning the interactions at this urban scale have a direct impact on communities and those within. This also means that there is potential for more immediate action when developed at this level. This draws reference to the inability or difficulties that global, regional and city planning have when it comes to benefiting at the individual scale. However, this investigation revealed a pattern of connection within each urban scale and its networks.

Global: Driving Change
The global scale drives change through both fiscal and informational resources accessible on a broad spectrum. Global networks have the ability to initiate widespread change through networking. This draws the question, how can networked neighborhood planning be developed for widespread connections that initiate developments?

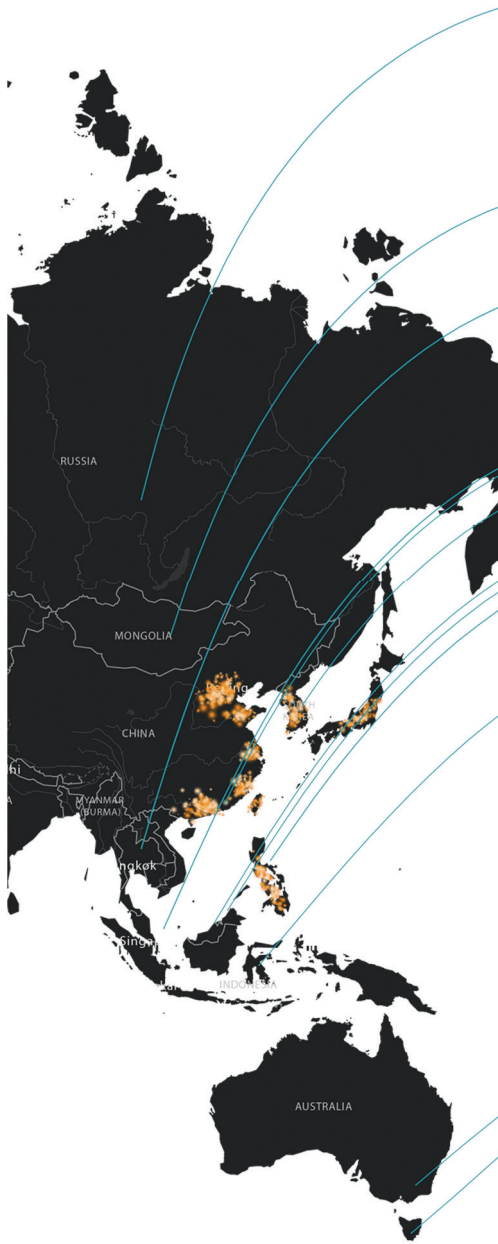
how can networked neighborhood planning be developed for widespread connections that initiate developments?

Regional: Creating Connections Through Conditional Boundaries
Regional networks are created through conditional boundaries formed by similar conditions or inequities. The conditions of need drive interaction and transactions between regions creating interconnected urban networks that can be dependable sources for creating equity through resource sharing. In Flint widespread vacancies and limited resource availability throughout Flint neighborhoods have created conditional boundaries where connections are made.

City: Driving Transaction
Most interactions and transactions occurring at the city scale are economic related. The networks present are primarily physically created when transportation infrastructures are engaged during the commute to work or distribution of goods throughout the city, or when structures are utilized for shopping. How can the concept of transactions through the physical environments of neighborhoods boost networking?

Neighborhood: Engaging Opportunities
Neighborhoods in Flint experience sprawl and widespread vacancies leaving them stagnant and unused. These areas and much of its population have limited accessibility to transportation, earmarking the concept of connection through mobility.

Individual: Developing Equity
As previously stated in chapter 1 What is Neighborhood Networking, the individuals, although not urban in form, are key components in all things urban. Without individual contribution cities are developed systematically and the possibilities for richness and diversity is no longer possible. Each individual is rich in knowledge, skills, and ideologies and when connected to others creates great possibilities for equitable planning and developments.



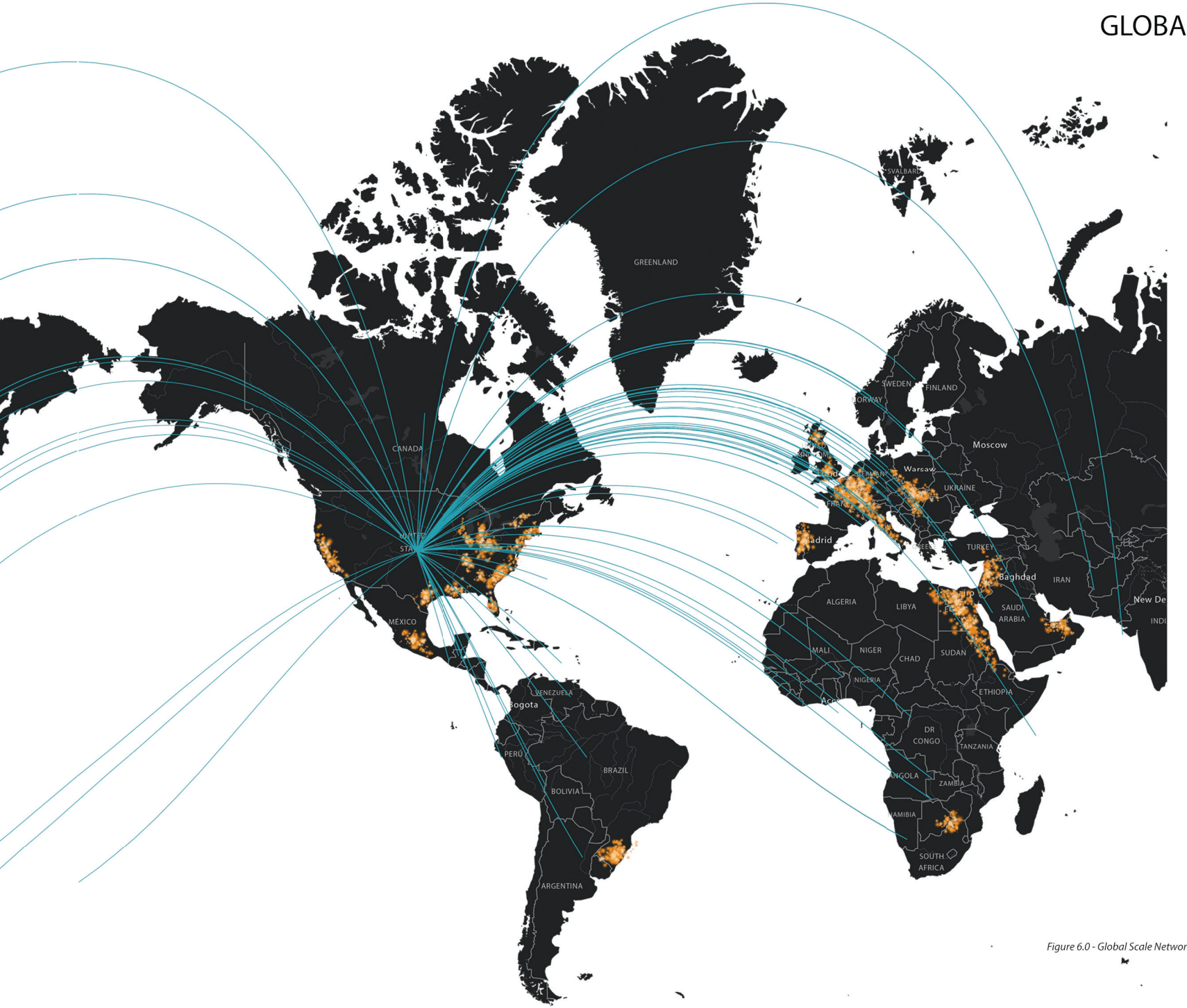


Figure 6.0 - Global Scale Networks

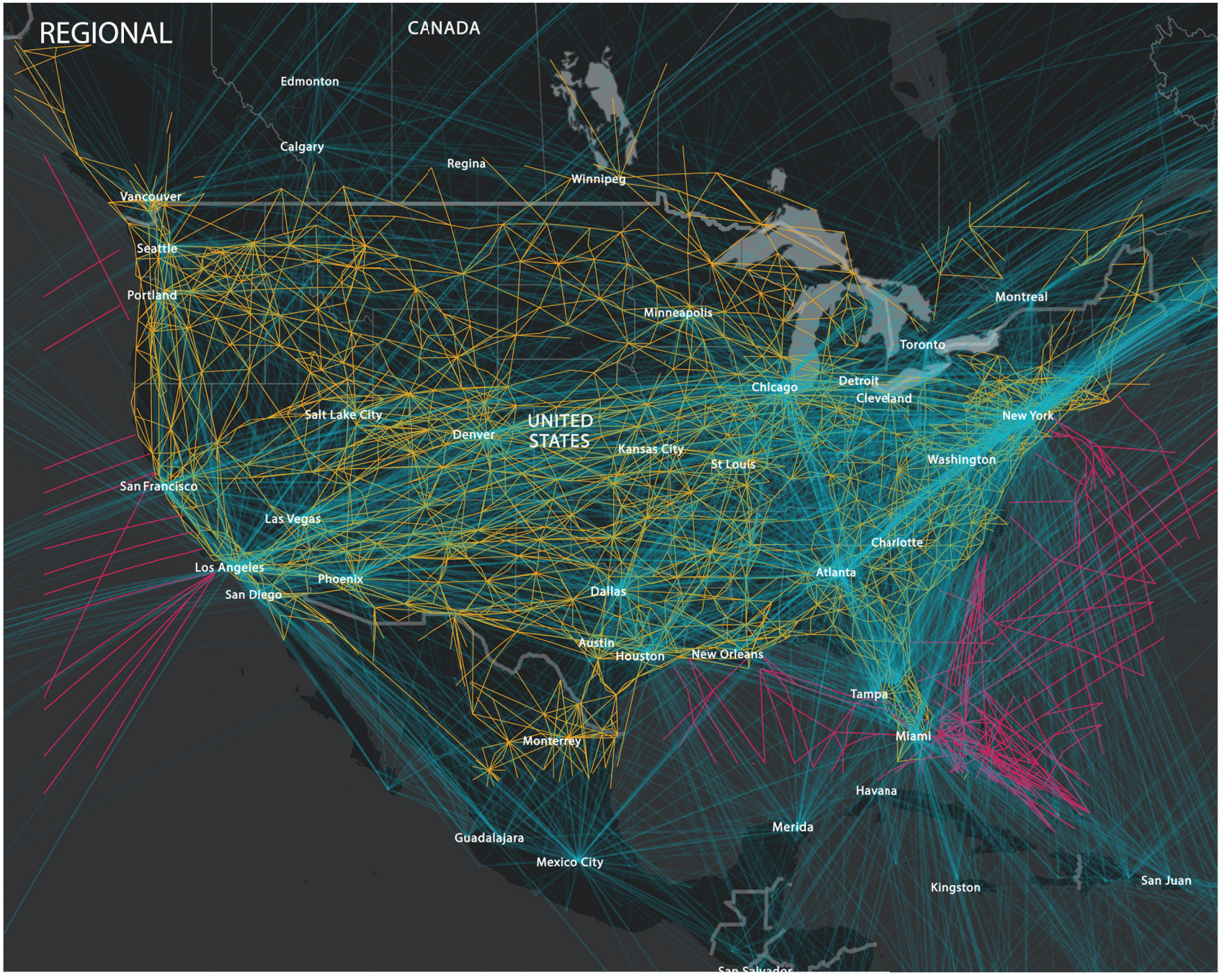


Figure 6.1 - Regional Scale Networks

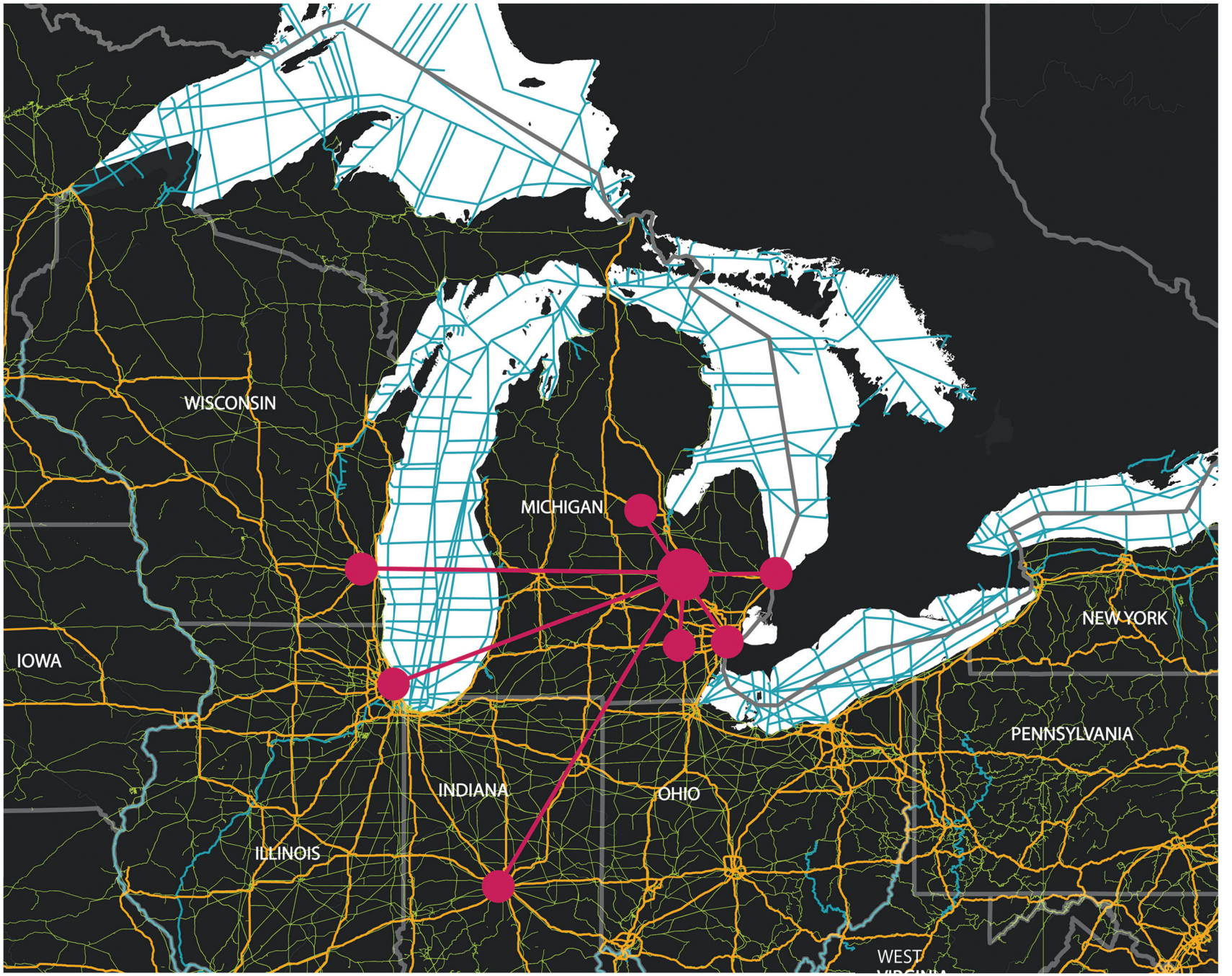


Figure 6.2 - Great Lakes Region Scale Networks

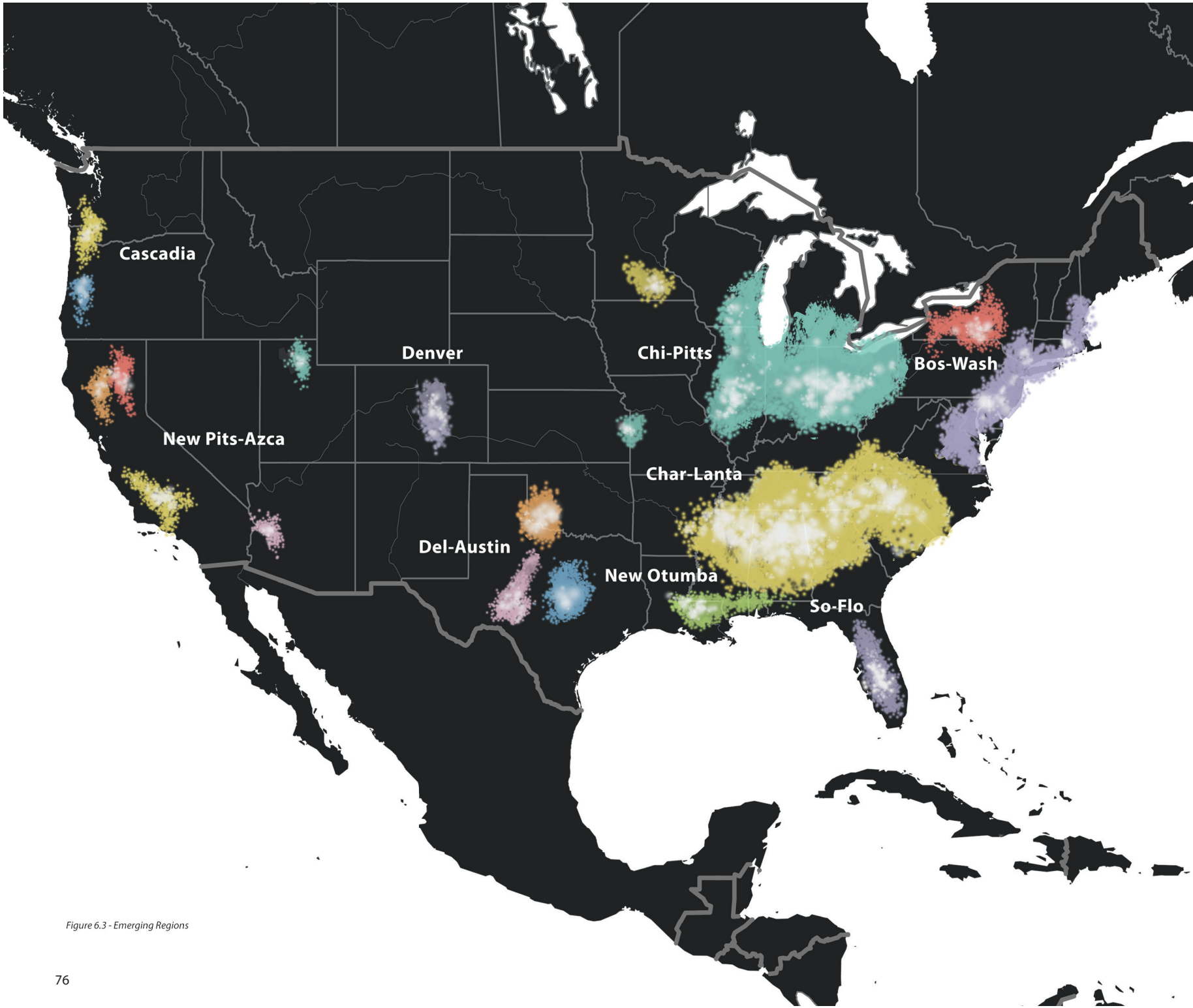


Figure 6.3 - Emerging Regions

Figure 6.4 - Emerging Regions Conditional Network

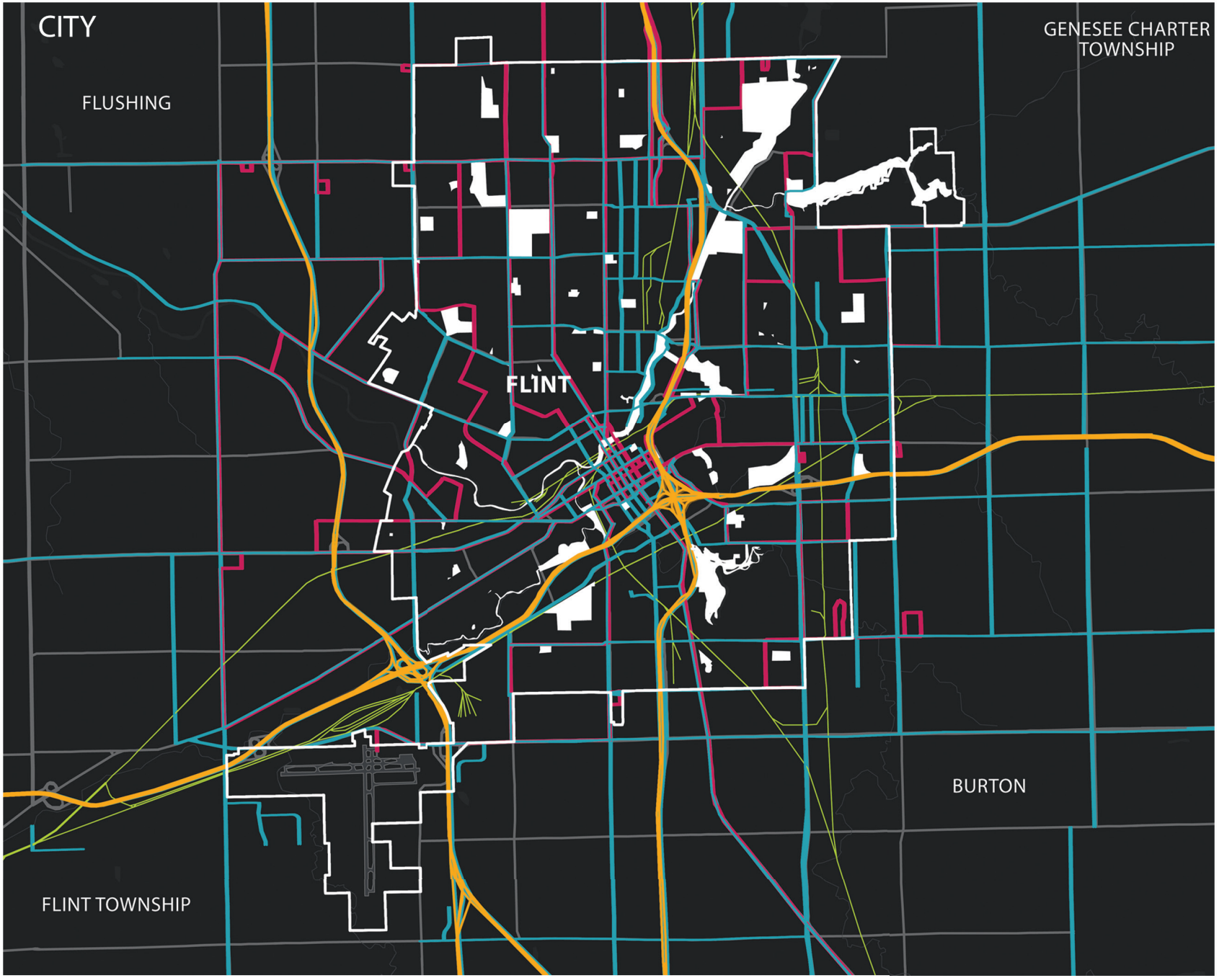


Figure 6.5 - City Scale Networks

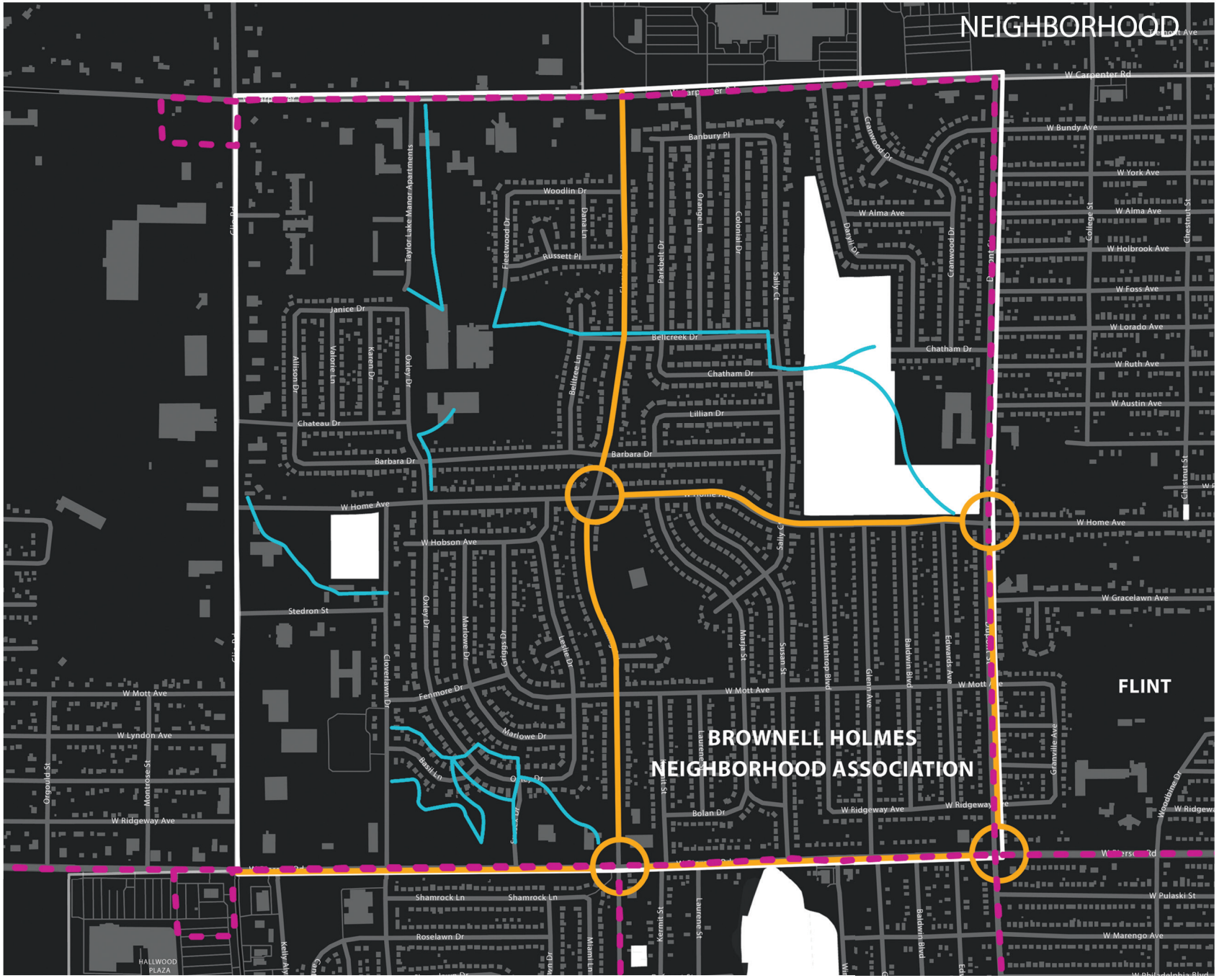
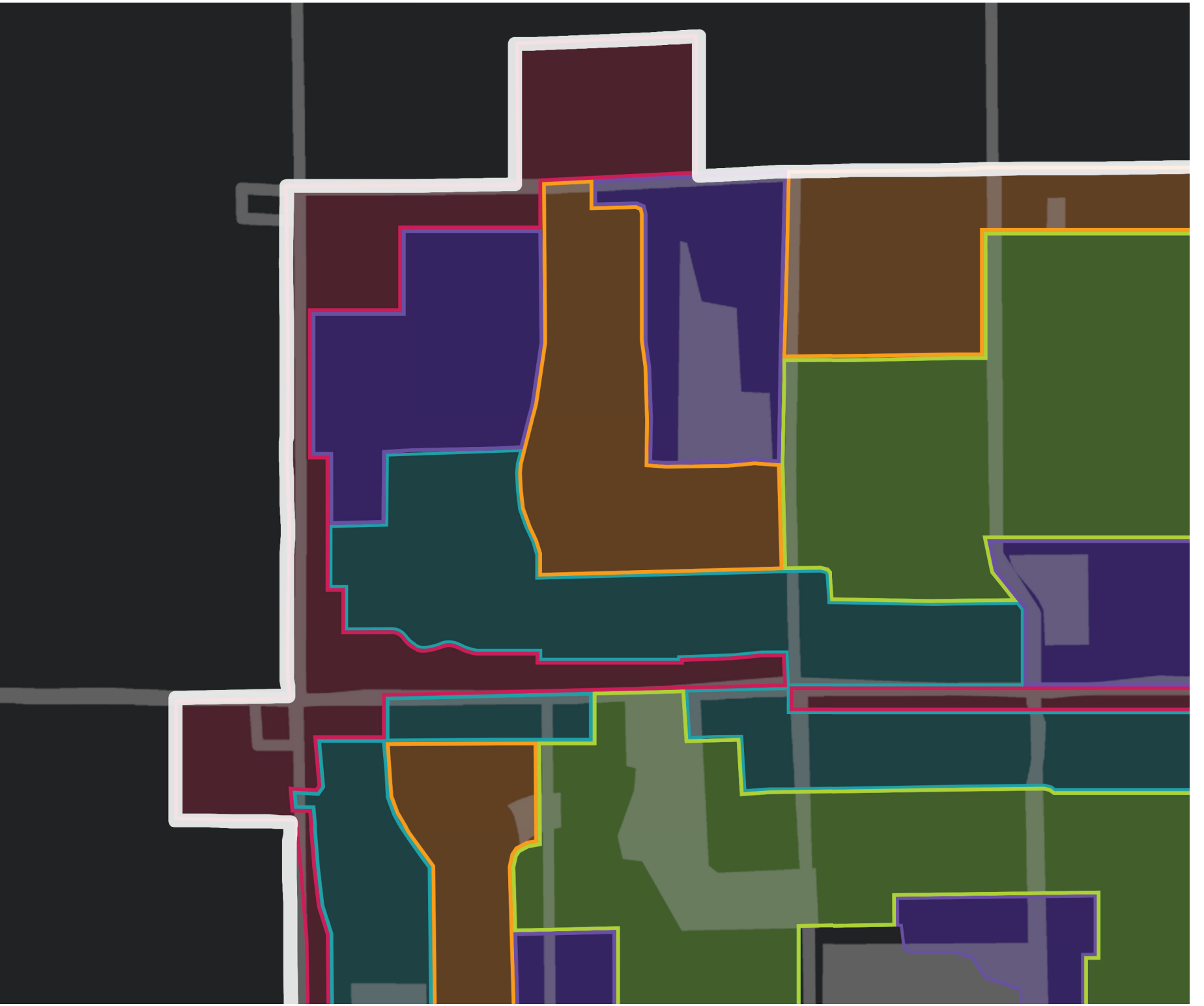


Figure 6.6 - Neighborhood Scale Networks

CHAPTER 7:
NEIGHBORHOOD NETWORKING STRATEGIC FRAMEWORK PLAN



After synthesizing literature, several contextual analysis, and a critique of urban planning, it was necessary to conduct case study investigations on neighborhood planning. The following chapter provides a review of three projects which are then adapted and applied to the Brownell Holmes Neighborhood Association in Northwest Flint. The following case studies were done on city's of similar conditions in relation to post-industrial landscapes, disinvested communities and how the urban fabric responds to urban planning and corrective responses; these case studies were selected to enhance the understanding of urban planning and urban revitalization strategies and processes. This investigation was important in organizing, structuring and planning a strategic networked neighborhood framework plan.

Following the case studies the development of the proposed neighborhood framework plan began. This chapter outlines the process in which Neighborhood Networking utilizes urban synergy and previously discussed networking and urban planning components - urban scale, urban networking, and community engagement - to create a cohesive and connected system and the modules, or nodes within this network, that is Neighborhood Networking. Here we begin to reveal answers for how neighborhood planning can utilize networking to create equity in disinvested communities.

Figure 7.0 - Neighborhood Networking Framework Vignette

NEIGHBORHOOD PLANNING CASE STUDIES

Figure 7.1 - Detroit Strategic Neighborhood Fund Rendering

DETROIT STRATEGIC NEIGHBORHOOD FUND, DETROIT

Detroit Strategic Neighborhood Fund aims to stabilize Detroit neighborhoods by focusing on commercial corridors, parks, streetscapes, and homes in how areas are funded. These enhancements are meant to improve the experience of residents in the selected neighborhoods and have been proven to improve residents' quality of life, likelihood of remaining in the area, and perception of safety without increasing fear of displacement.

Public Space Enhancements - Plantings, lighting, street furnishings, paving and more
Safe bicycling connections
Safe pedestrian crossings
Alley Improvements
Designated parking spaces
Reconfiguration of traffic lanes
District identity, public art, and wayfinding signage

With locations of green space and vacant structure this proposed land use map was developed to highlight walkability, community engagement and self-sustainability. Mixed Use areas are joined with Mixed Residential zones to allow community advocacy of commercial development and interaction among residents. Neighborhood Centers border existing parks and vacancies to promote social interaction and to provide the necessary tools for community development.

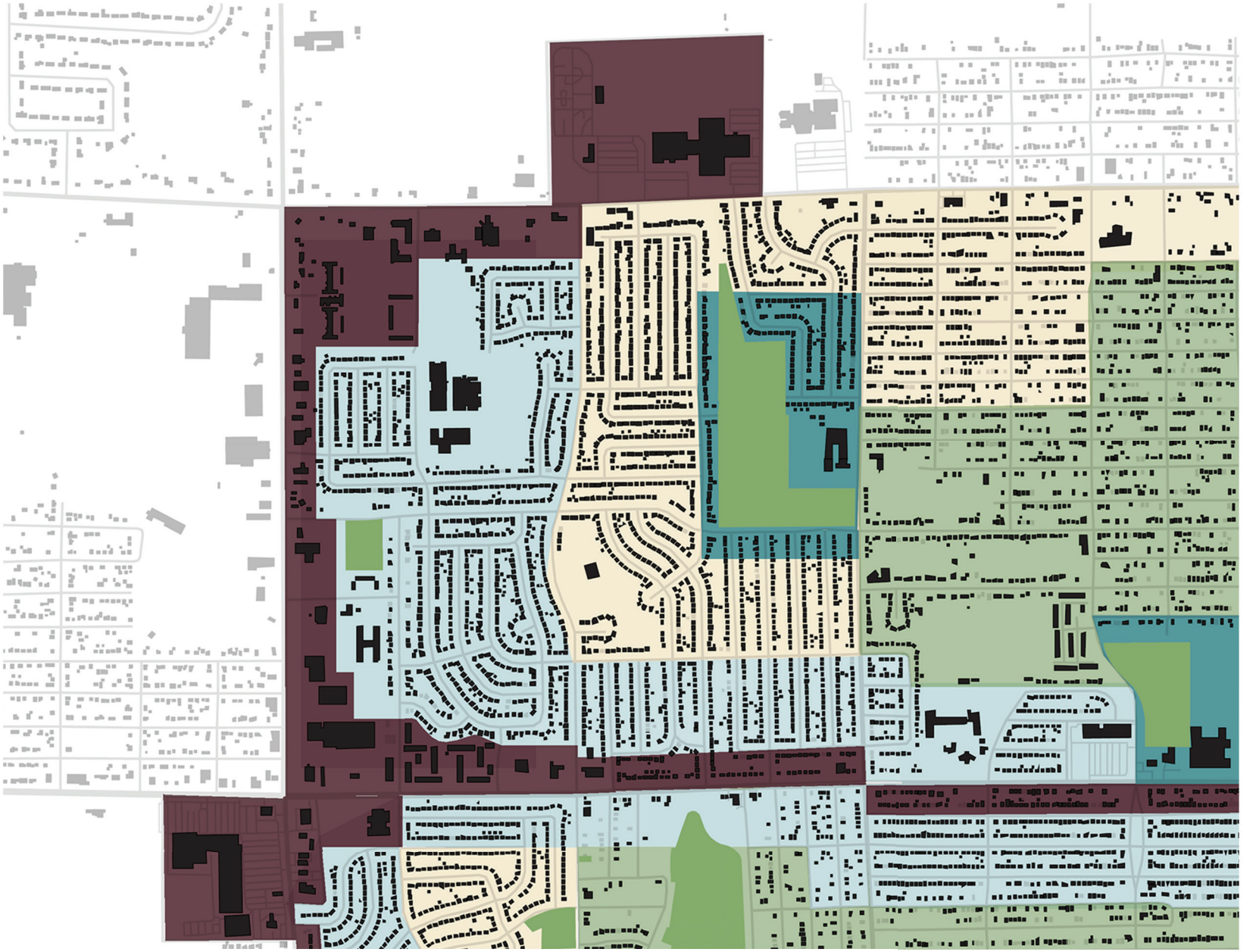


Figure 7.2 - Detroit Strategic Neighborhood Fund Application and Adaptation

Figure 7.3 - Complete Neighborhood Model Rendering

COMPLETE NEIGHBORHOOD MODEL, MINNEAPOLIS

The Complete Neighborhood Model strives to provide all necessities within a twenty minute walk, helping to achieve a self-sufficient and sustainable neighborhood. This precedent was studied based on success expected and seen in Minneapolis using this model. Flint is an area affected by post-industrial landscapes and hold spaces that could be transformed to accommodate the neighborhoods' needs.

Affordable and Quality Housing: A complete neighborhood should possess a diverse housing supply, both in type and cost, to ensure that everyone has a place to call home.
Education Access and Schools: A complete neighborhood should support all residents in pursuing a quality and local education.
Public Transportation: A complete neighborhood should ensure that everyone has safe and adequate access to public transportation
Health Care: A complete neighborhood should be able to meet the day-to-day needs of its residents through the provision of local clinics or health centers.
Healthy and Fresh Food: A complete neighborhood should provide ample access to fresh and healthy foods through local markets
Parks and Civic Space: A complete neighborhood should be connected to and by parks and civic spaces.

Resources such as health care, access to fresh and healthy food, affordable housing and accessibility limit the neighborhood organizations of North West Flint. However, the abundance of available structure and green space provide opportunities for these neighborhoods to take advantage of resident driven development.

Resources such as health care, access to fresh and healthy food, affordable housing and accessibility limit the neighborhood organizations of Northwest Flint. However, the abundance of available structures and green space provide opportunities for these neighborhoods to take advantage of resident driven development.

Figure 7.4 - Complete Neighborhood Model Application and Adaptation

Figure 7.5 - Neighborhood Engagement Hub Motto

NEIGHBORHOOD ENGAGEMENT HUB, FLINT

It was important to select a case study from Flint to determine the probability neighborhood networking would be successful through community engagement. The Neighborhood Engagement Hub was developed to strengthen and restore neighborhoods by providing a source for information, education facilitation, project development, advocacy, and supportive equipment and materials. The Neighborhood Engagement Hub provides workshops, training and consulting services, including group formation support, meeting facilitation, goal identification, one-year Action-Planning assistance, fiduciary support and other ongoing support as needed to neighborhood groups.

We Serve - Neighborhood groups and residents in the city of Flint serving their community
We Work - Throughout the Genesee County with a focus on the City of Flint.

We Provide - Neighborhood groups and residents with information, support, ad tools for planning and project implementation.
Our Goal - is to support residents in efforts to make our community a more viable place to live, work and play.

Figure #.# illustrates the existing conditions of neighborhood organizations in North West Flint. All conditions provide opportunities for community engagement and networking. Each of which are currently prioritized in community cleanup efforts and provide a space for collaboration and advocacy. The Neighborhood Engagement Hub was strategically developed to leverage community engagement through resource incentives in order to encourage urban revitalization. Community members who participate not only have access to the necessary tools for community development, they also have access to the information, ideas, and resources through social networking.

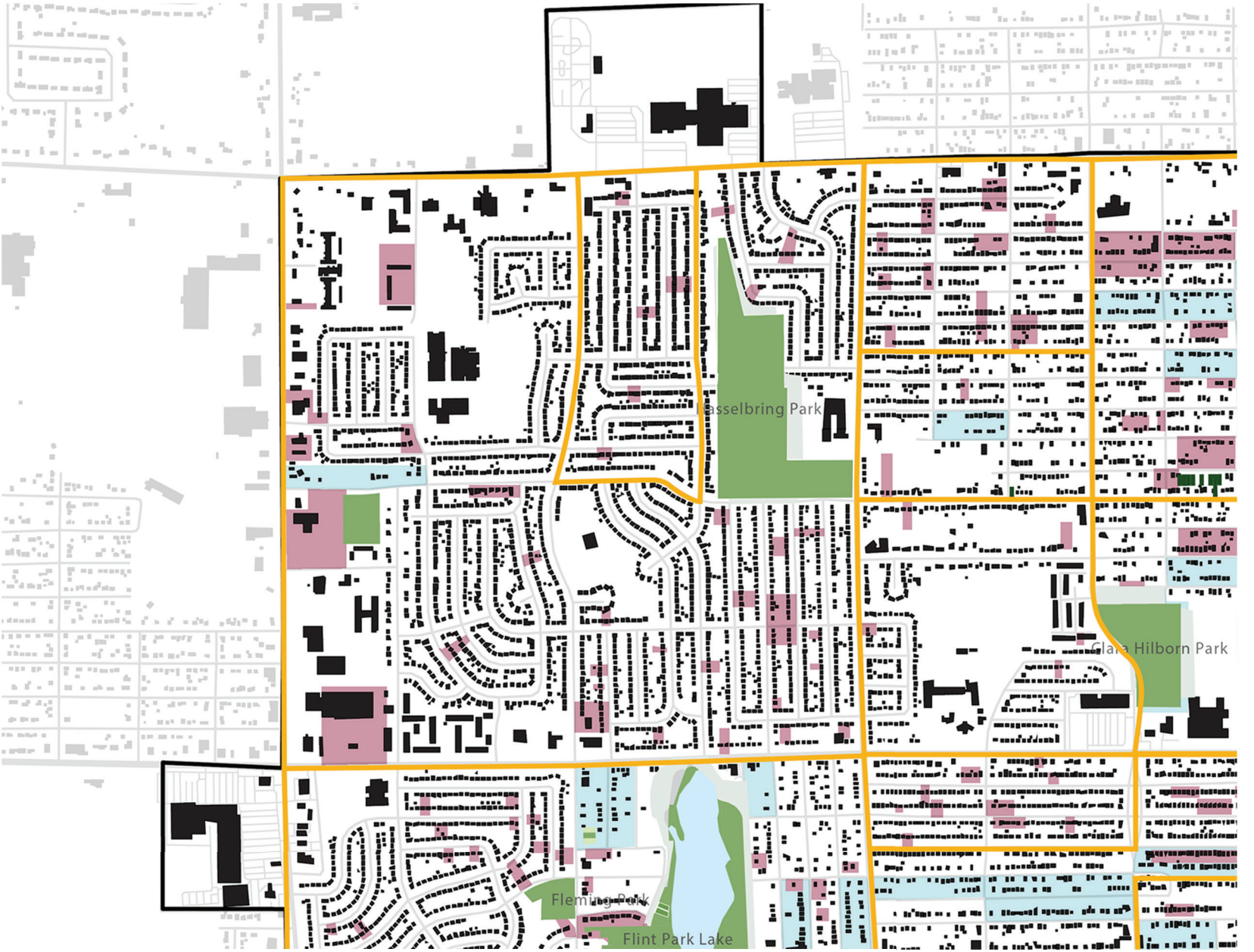


Figure 7.6 - Neighborhood Engagement Hub Application and Adaptation

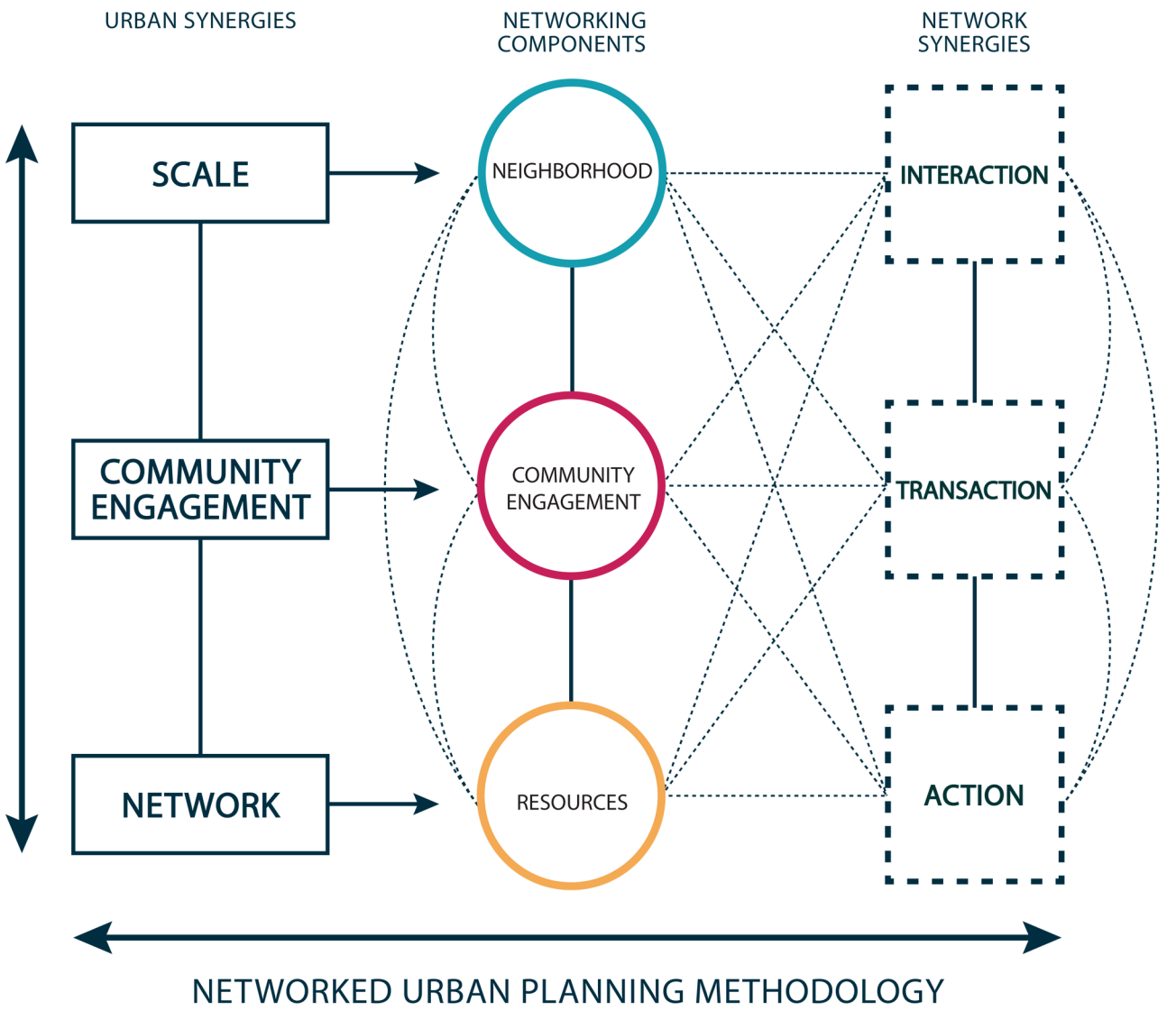
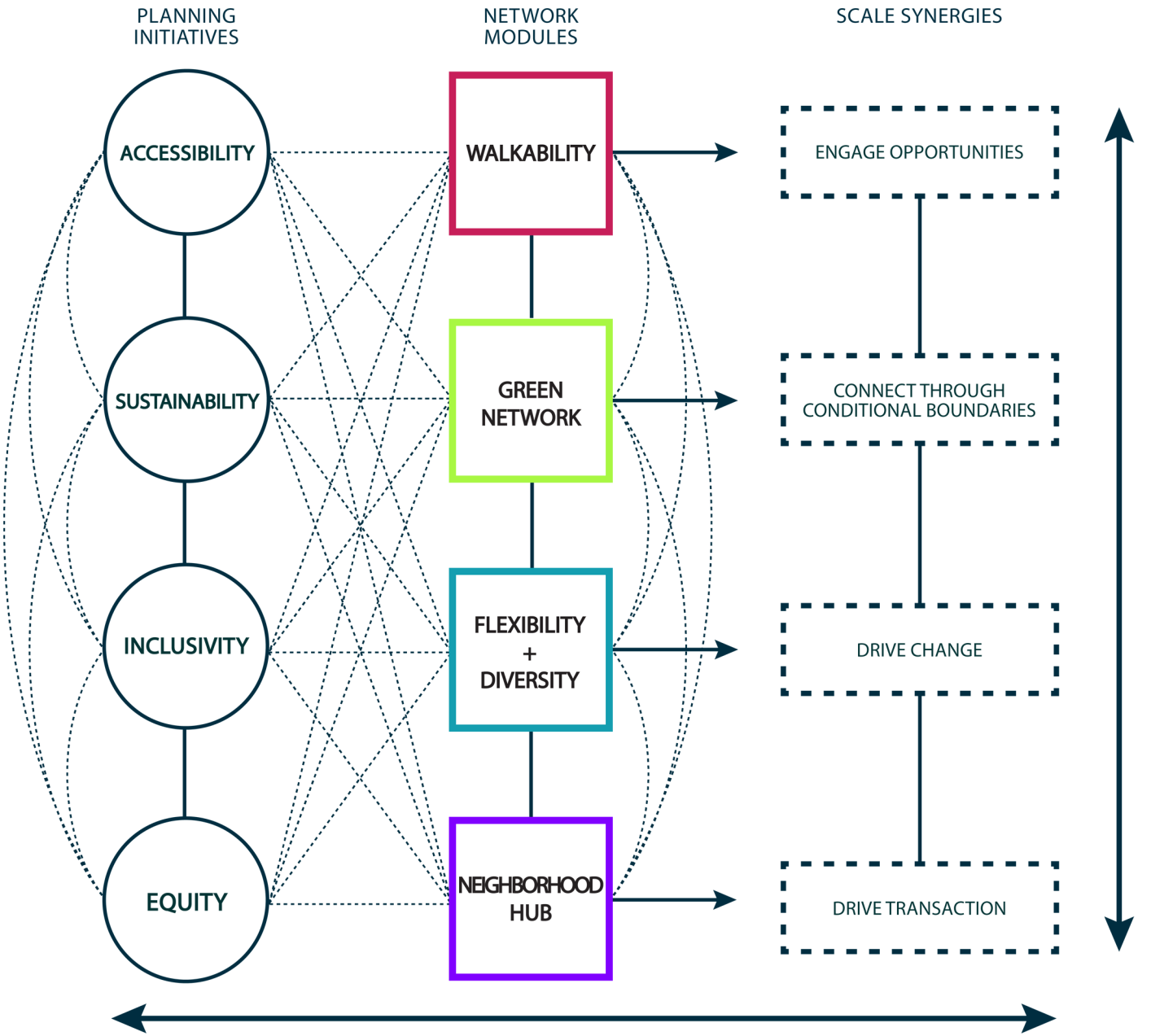


Figure 7.9 - Networked Urban Planning Methodology Diagram
Figure 7.10 - Networked Neighborhood Framework Diagram



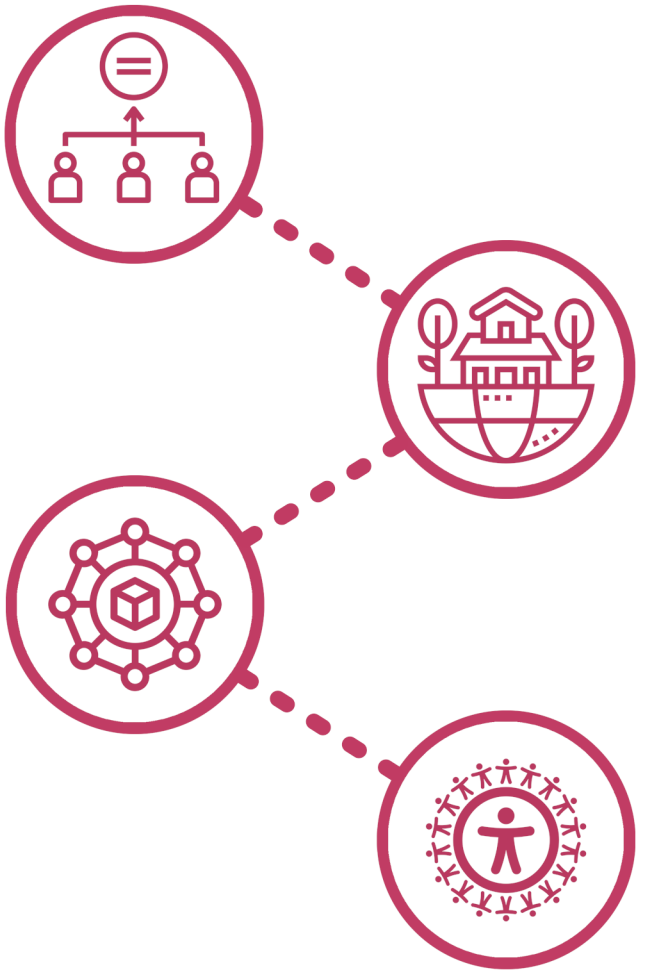
NETWORKED NEIGHBORHOOD FRAMEWORK

EQUITY

Ensure fair urban planning addresses the historically underrepresented groups and reverse the effects of inequitable planning.

INCLUSIVITY

Highlight existing social and physical networks to encourage collaboration, community problem solving and advocacy through participatory planning.



SUSTAINABILITY

Establish a framework that allows neighborhoods to become self-sustainable through community led developments.

ACCESSIBILITY

Expand involvement in community activities and improve accessibility to housing, food, education, healthcare and community development through networking.

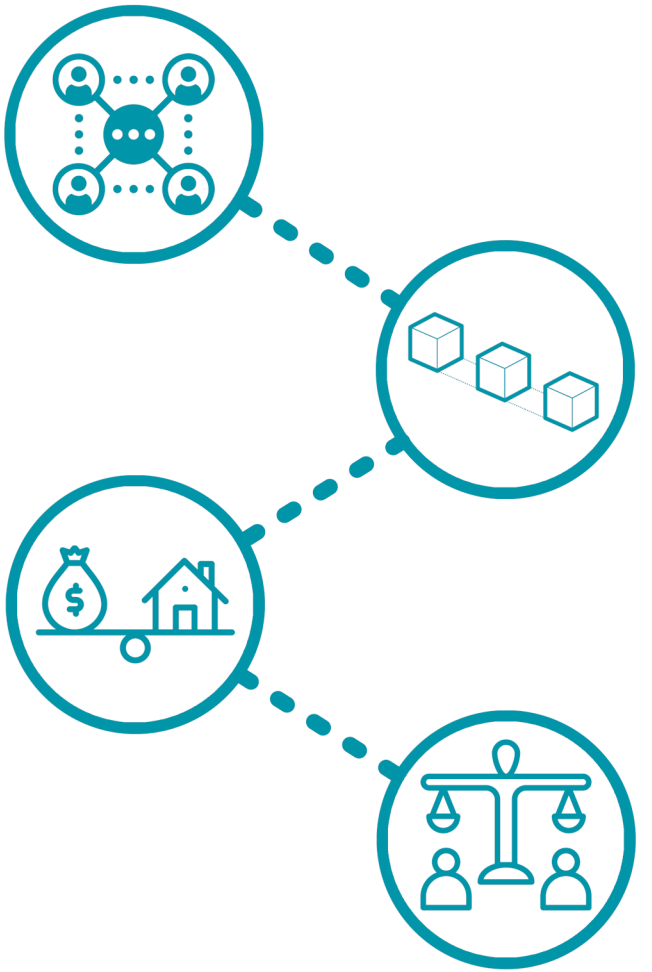
Figure 7.11 - Neighborhood Networking Strategic Framework Plan Initiatives

SOCIAL

Establish neighborhoods as safe and engaging resources through a physical network strategically linked together.

ECONOMIC

Reposition land, natural resources, and infrastructure for sustainable economic growth through social and physical networking.



SPATIAL

Establish a networked spatial framework that utilizes existing social and physical networks to assist in networking and community building.

POLITICAL

Build trusting relationships between municipalities and residents to empower communities, encourage participation and improve accessibility.

Figure 7.12 - Neighborhood Networking Strategic Framework Plan Guiding Concepts

DIMENSIONS

ECONOMIC

Connections created through social and spatial networking are essential when communities are addressing issues with financial implications. Neighborhoods can coordinate with outside entities that provide funding and other resources.

Communities have the resources to address financial stressors, food, home repair, employment, education and healthcare. This can also be done internally through resource sharing and collaborative work between communities.

Plans that prioritize community engagement and walkability also create the opportunity for neighborhoods to coordinate small scale mixed-use developments in their communities.

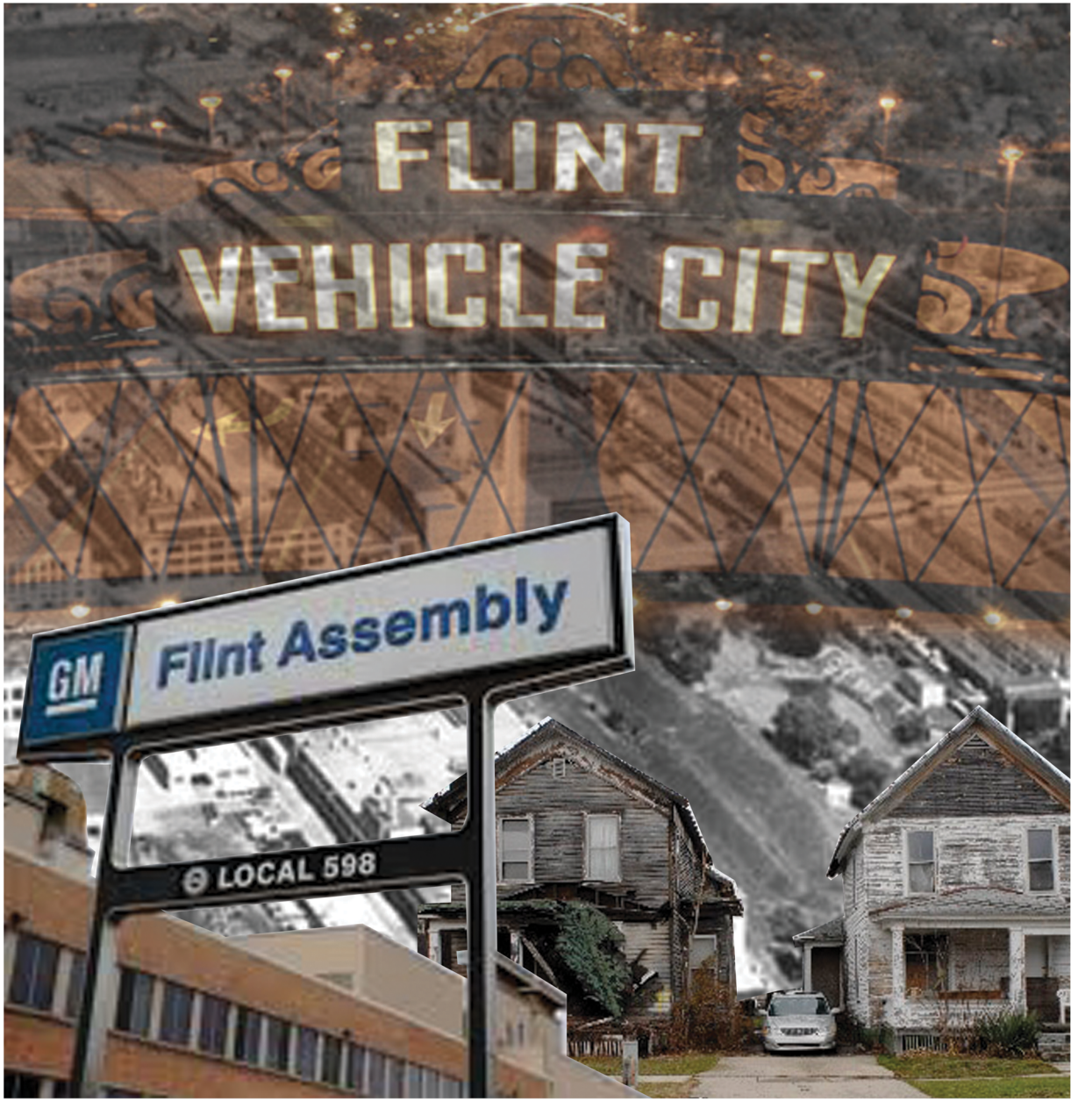


Figure 7.13 - Economic Dimension of Urban Planning

Figure 7.14 - Political Dimension of Urban Planning

POLITICAL

Neighborhood Networking is based on community engagement and creating a way for small-scale communities to make big changes. Urban policy decisions greatly impact residents, organizations and small businesses so their political involvement is essential.

Neighborhood Networking creates a pathway for political intervention and advocacy. Community participation in municipal affairs allows them to influence policy decisions, contribute to efficient urban planning and ultimately the growth of the city as a whole.

SOCIAL

Urban planning that incentivizes social connection allows communities to establish the framework of relationships and connections that neighborhood networking depends on.

Each neighborhood varies in culture, history and its strengths and opportunities. The social connections between these communities creates a diverse network of resources that can be used throughout the city.

Consistent social interaction allows communities to strengthen relationships between neighborhoods and organizations and re-introduce residents to their city.

Figure 7.15 - Social Dimension of Urban Planning

Figure 7.16 - Spatial Dimension of Urban Planning

SPATIAL

Dedicated social spaces, both local to each neighborhood and broad, provide the environments where the established 'net' and the 'work' of each neighborhood can engage and work collectively. These spaces,both local to each neighborhood and broad, combined with consistent social interaction prioritizes the city's walkability, adaptive reuse, and green space.

Consistent social interaction allows communities to strengthen relationships between neighborhoods and organizations and re-introduce residents to their city.

FRAMEWORK MODULES

Walkability introduces accessibility by utilizing walkable strategies to connect neighborhoods internally and externally, encourage community engagement, and improve accessibility and inclusivity. Walkable communities encourage pedestrian activity, expand transportation options, and have safe and inviting pedestrian infrastructure is accessible and serves people of all ages and abilities.

Scale Ideology:
Engaging Opportunities
Neighborhoods are encouraged to lead decisions on development takes place within their limits. Community led planning allows residents to shape their environment to match the current needs and identity of a neighborhood. Loose zoning is a concept intended to minimize the municipal authoritative presence and allow residents the ability to influence use and development of their neighborhoods.

Integration of community led planning, walkability, and loose zoning allows for neighborhoods to have a dynamic environment to meet all needs, diversity in land use and encourages economic development.

Figure 7.17 - Walkability Vignette

Figure 7.18 - Green Network Vignette

Green Networks is a sustainable new model for post-industrial land use where vacancies and targeted demolitions transform low density neighborhoods into Green Networks. Provide parks, open space, and recreation infrastructure that both meets the needs of the community and incentivizes connectivity and engagement.

Scale Influence:
Creating Connections Through Conditional Boundaries

The interactions that occur through physical and social networks are essential when communities are addressing issues with financial implications. Neighborhoods are provided the opportunity to connect with outside entities that provide funding and other resources. Through networking neighborhoods gain accessibility to resources such as education, healthcare, funding, home repair, blight removal and more.

Flexibility + Diversity is an inclusivity module that allows communities to lead their neighborhoods to aid in economic, racial, and social diversity. This allows for richer diverse communities with mixed-income and mixed use developments to be integrated into the fabric of the city. The community should provide a variety of types and different prices of dwelling, so that different classes can afford them. This not only reflects the social equity, and to enrich the social structure within the community, but also conducive to the development of the community. (Jianxiao Liu, 2012).

Scale Influence: Driving Change

Neighborhood planning usually is supported by government planners. However, neighborhoods can produce their own plans, usually assisted by advisors such as in housing, public safety, and economic development. It especially is helpful for neighborhoods to be assisted by those who understand how neighborhood plans and planning can mobilize public involvement; leverage resources from local government, school systems, businesses, and foundations; and establish community-supported development regulations. Networked Neighborhood Planning creates a pathway for political intervention and advocacy by residents. As a reciprocation to planning that acts as a footing in the foundation, participation in municipal affairs allowing residents to influence future development and contribution to the urban planning ultimately provides the opportunity to positively influence larger urban scales.

Figure 7.19 - Flexibility + Diversity Vignette

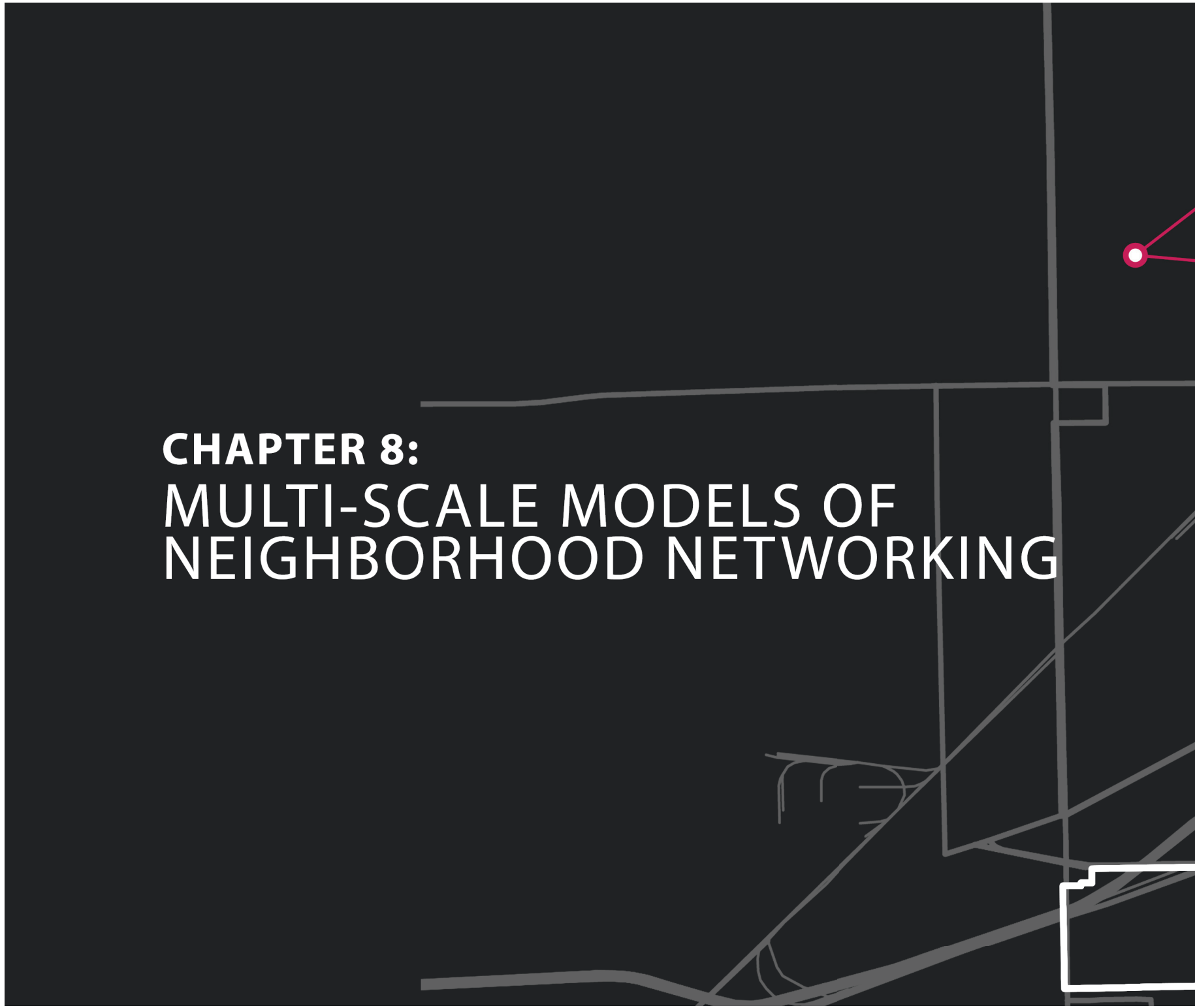
Figure 7.20 - Neighborhood Hub Vignette

Neighborhood Hubs are an equity initiative that are adaptive re-use structures within a neighborhood in order to maintain the communities identity and provide an adaptive space to be used as a central point in neighborhoods. Neighborhood hubs can also encourage new developments and offer resource distribution which leads to greater diversity and richer urban life.

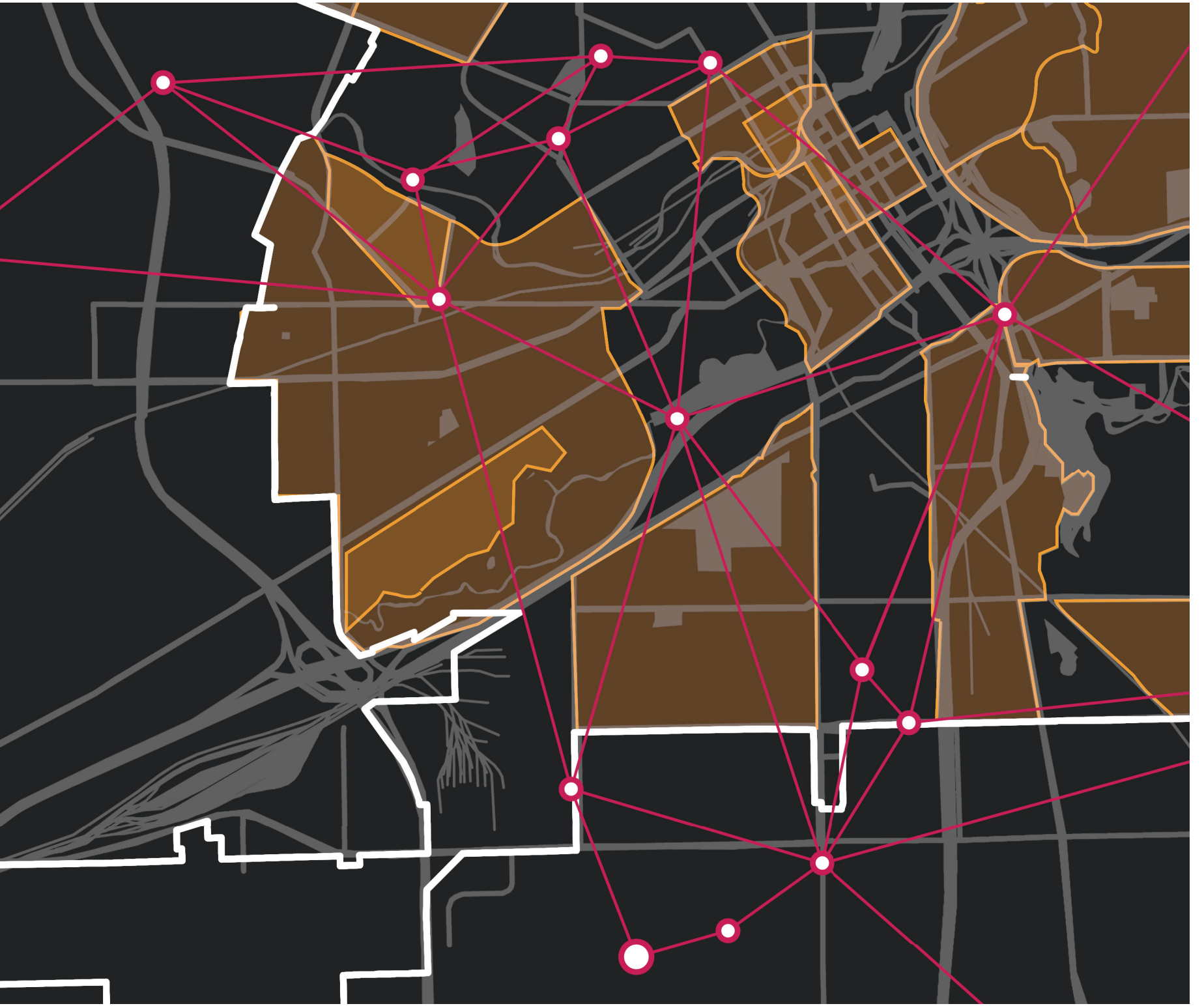
Jianxiao Liu's definition in The New Urbanism as a Theory and Its Contemporary Application in China aided in the determination of this module. Here she states each neighborhood has its own center and should prioritize public space. They define what this thesis references as a Neighborhood Hub as "the open public space, which should be set to green spaces and squares for community activities.

Scale Influence:
Driving Transaction

A neighborhood's connections to the regional economy affect the flow of income, wealth, and investment into the community, which indirectly influences local buying power and support for local amenities. These connections are primarily about the extent to which a neighborhood's assets are effectively deployed into regional markets: its residents into the labor force, its businesses into high-growth supply chains, and its land and structural assets into regional real estate markets.



CHAPTER 8:
MULTI-SCALE MODELS OF NEIGHBORHOOD NETWORKING



Multi-scale mapping and diagramming of the proposed Neighborhood Networking Strategic Framework Plan improves our knowledge of the interconnected relationships and their complexities that can be used to guide practice, methodology, and design. To illustrate the impact of Neighborhood Networking and the framework's ability to bridge the gaps of inequity within disinvested neighborhoods, interventions are represented at the corridor, neighborhood and city scale. This reveals the extent of connections that appear through Neighborhood Networking, its implications and potential for community development.

Determining whether equitable urban planning was created was addressed through a contextual analysis of three design interventions sites. These sites are located in separate neighborhoods with varying demographics and accessibility to resources. The variety of strengths and weaknesses throughout the neighborhoods provides many great opportunities for community engagement, development, and networking incentives. The three neighborhoods include the following, Brownell Holmes Neighborhood Association, Rollingwood Blight Neighborhood Association, and the College Cultural Neighborhood Association, which have been outlined on their context, relationships and resources in a case study for mutual between neighborhoods to identify potential networking, community engagement and urban planning opportunities. This selection was crucial in ensuring the framework developed can be applied and utilized successfully in any neighborhood. The goal is to reintroduce resources and equity into disinvested neighborhoods, therefore incorporation of middle and resource rich areas is vital in synergizing community engagement, collaboration and networking. Each Neighborhood Network Model was strategically developed to serve communities at the neighborhood scale and also play a larger role in the functionality of a city by creating a physical and social framework of connection.

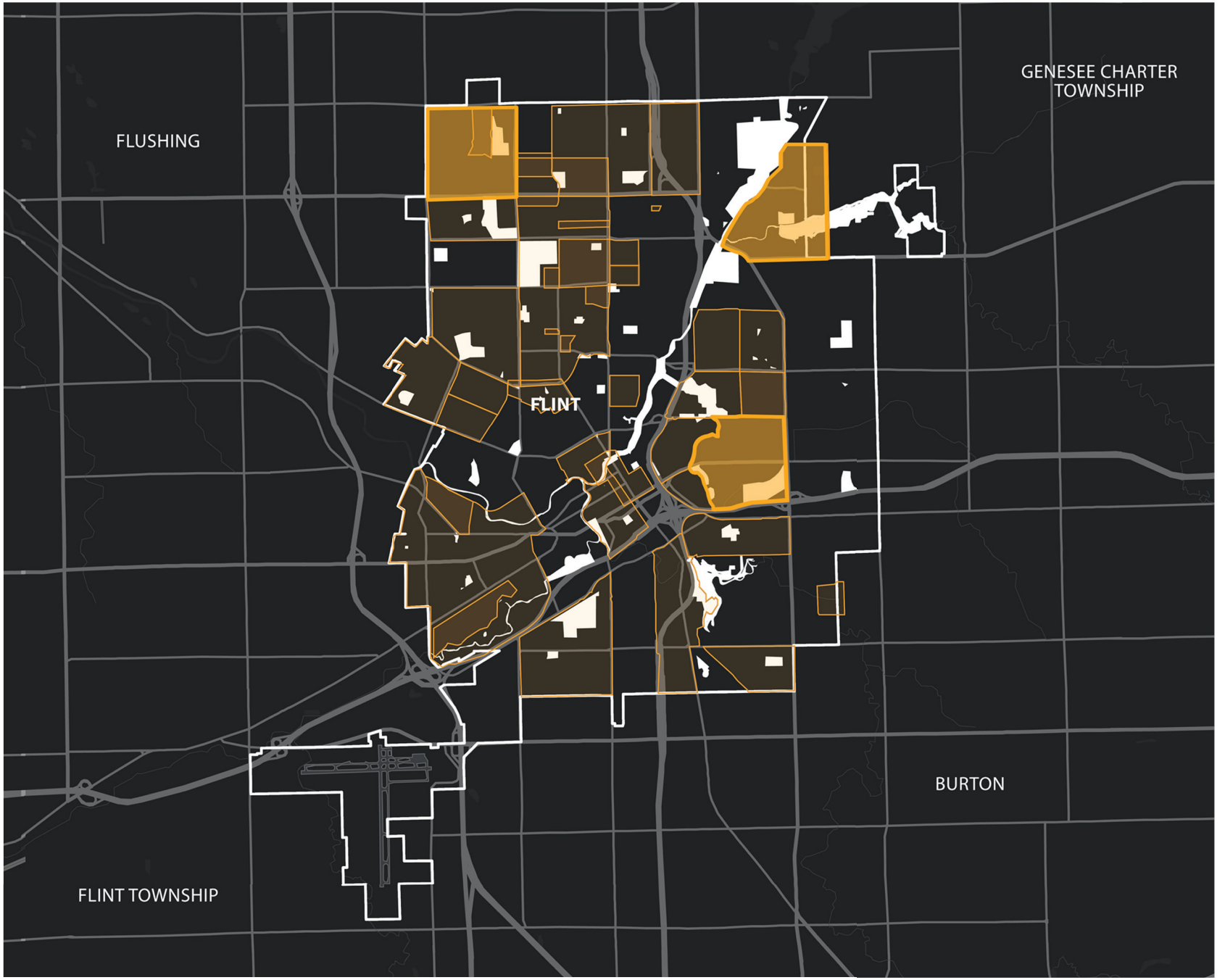


Figure 8.0 - Flint Neighborhood Organizations Before Neighborhood Networking

STREETSCAPE VISUALIZATION OF NETWORKING FRAMEWORK MODULES

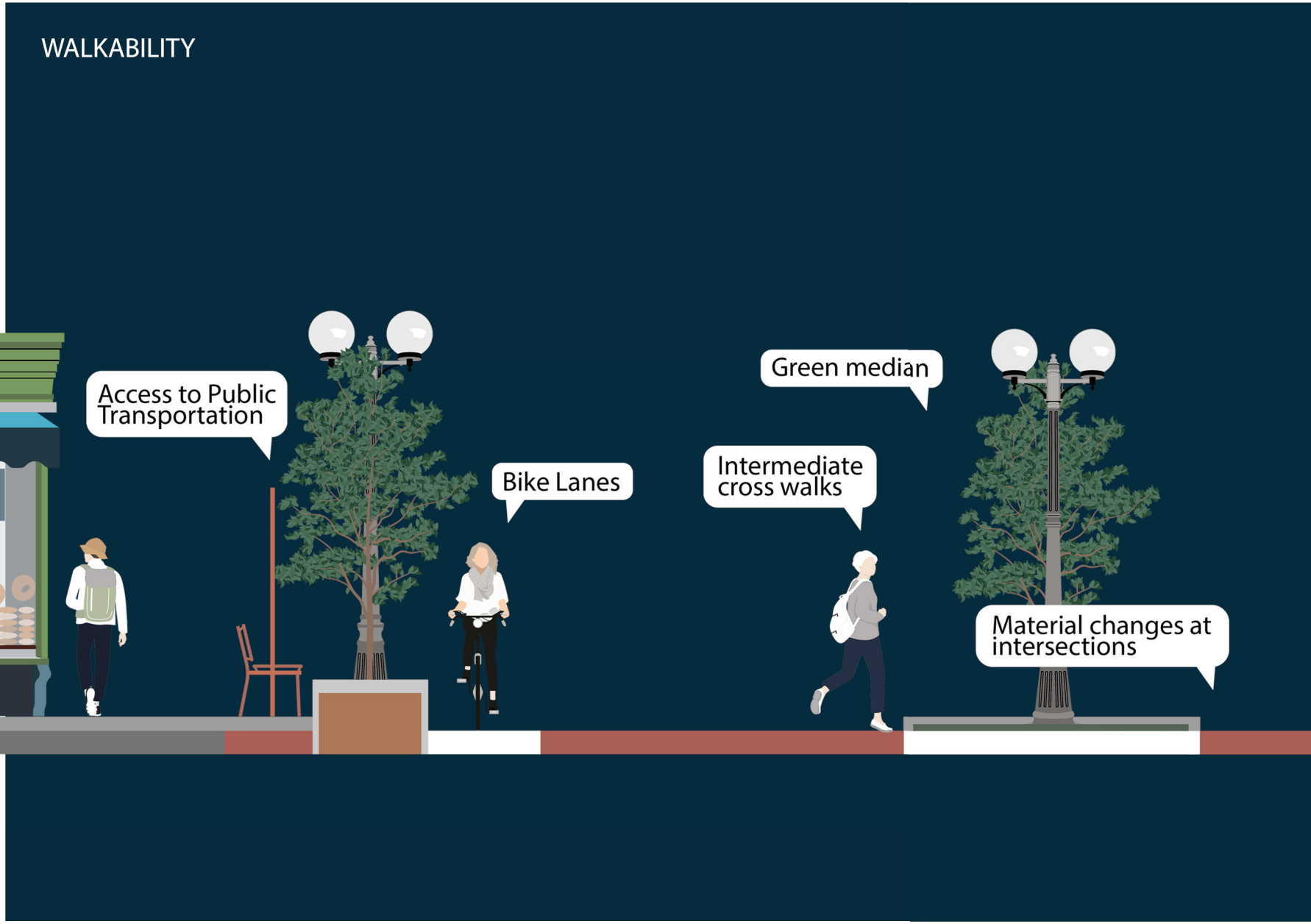


Figure 8.1 - Neighborhood Streetscape Visualization of Walkability Initiative

Vegetative buffer for pedestrian safety and noise pollution
Bike Rack
Bioswale

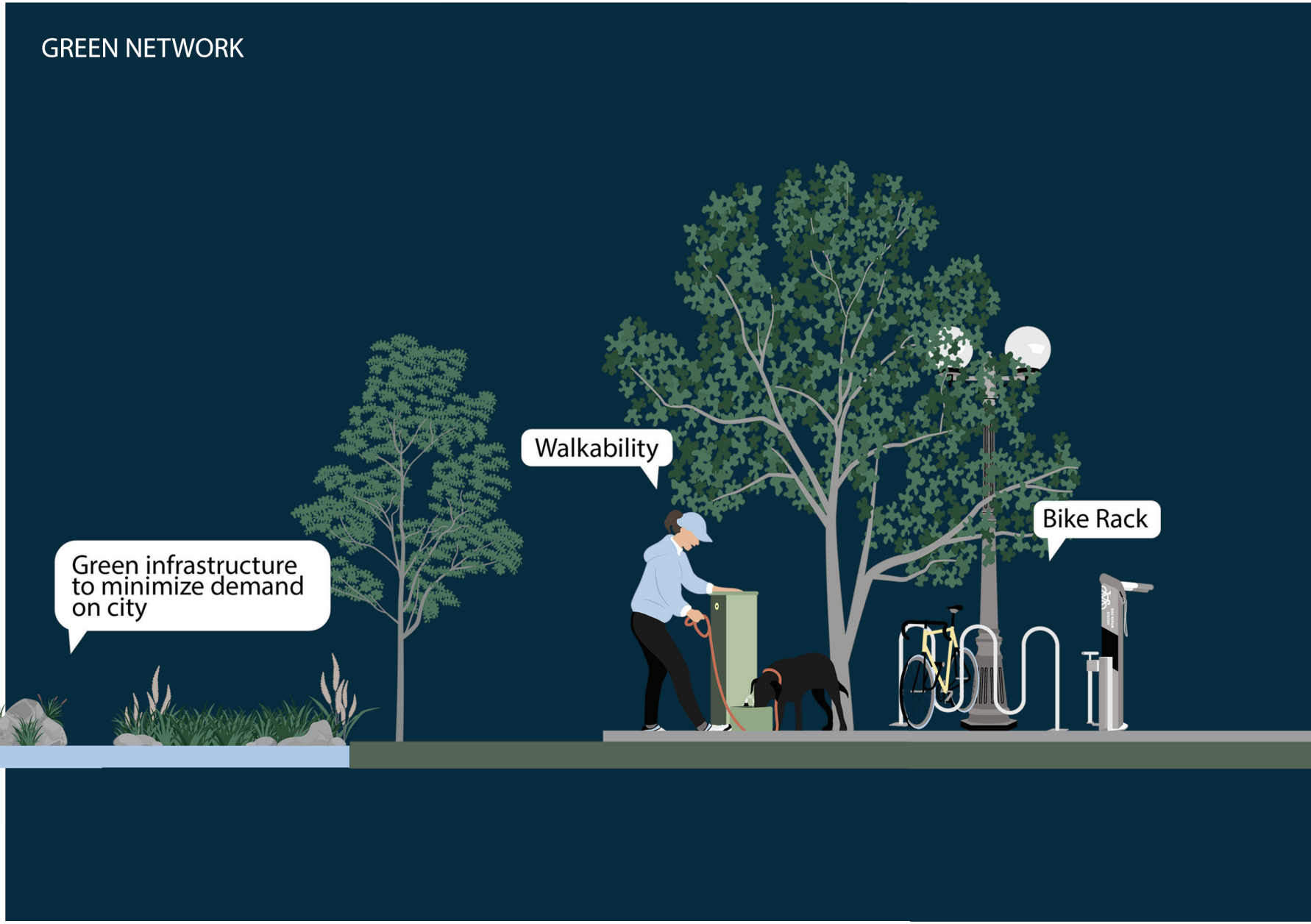


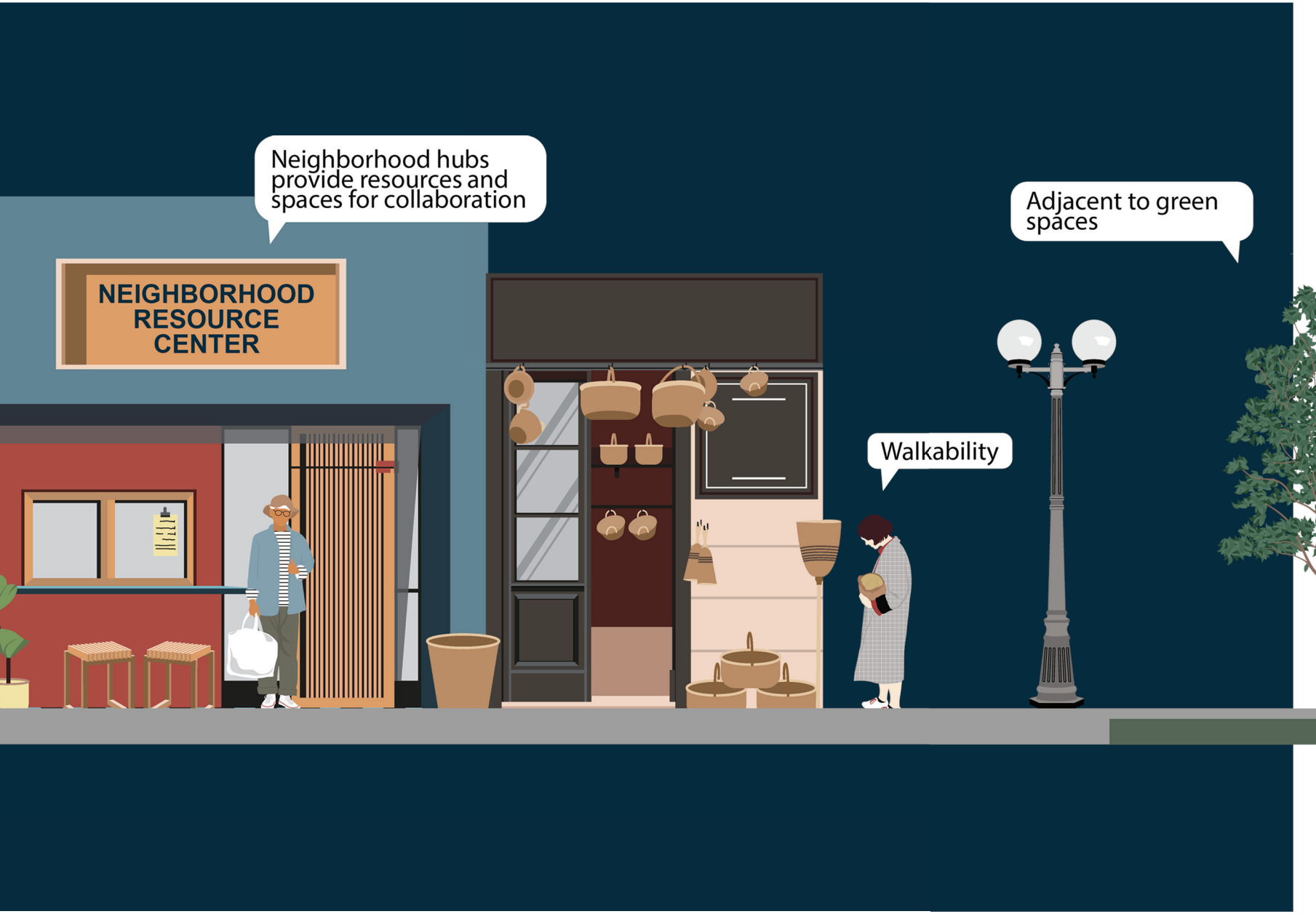
Figure 8.2 - Neighborhood Streetscape Visualization of Green Network Initiative

Transformed opportunity spaces bridging social and physical networks
Access to Public Transportation
Green initiatives
Community gardens
paper
plastic

Figure 8.3 - Neighborhood Streetscape Visualization of Flexibility + Diversity Initiative

Adjacent adaptable green space
flowers
delivery
open
Walkability
Bike Rack
coffee

Figure 8.4 - Neighborhood Streetscape Visualization of Neighborhood Hub Initiative


Neighborhood hubs provide resources and spaces for collaboration
NEIGHBORHOOD RESOURCE CENTER
Walkability
Adjacent to green spaces

NEIGHBORHOOD APPLICATION OF NETWORKING FRAMEWORK MODULES

With the lasting effects of post-industrial decline, the Flint water crisis and the COVID-19 pandemic city's are learning how to respond to these challenges in many ways, one of those being networking among themselves, communicating, collaborating and learning. There is an inherent reciprocity that occurs within urban environments. For example, the City of Flint operated under an outdated master plan that was not designed to address informalities occurring at the smallest urban scale, limiting populations to resources and essentially disconnecting a city from its foundation. To reiterate, this scale involves the communities and residents that make up a metropolis, without them, there is no city because the foundation cannot support the structure. When roles are reversed, reciprocity is still present. City planning developed through a bottom-up or participatory approach, allows the resources and accessibility for residents to support a city economically, politically, and culturally. Therefore, this means that neighborhood planning that is strategically planned through the concept of networking, can form a system of interactions, transactions and actions that bridge inequalities of larger scale forms of urban planning by beginning at the neighborhood scale.

Figure 8.5 - Comprehensive Neighborhood Application of Network Modules

Figure 8.6 - Neighborhood Application of Walkability

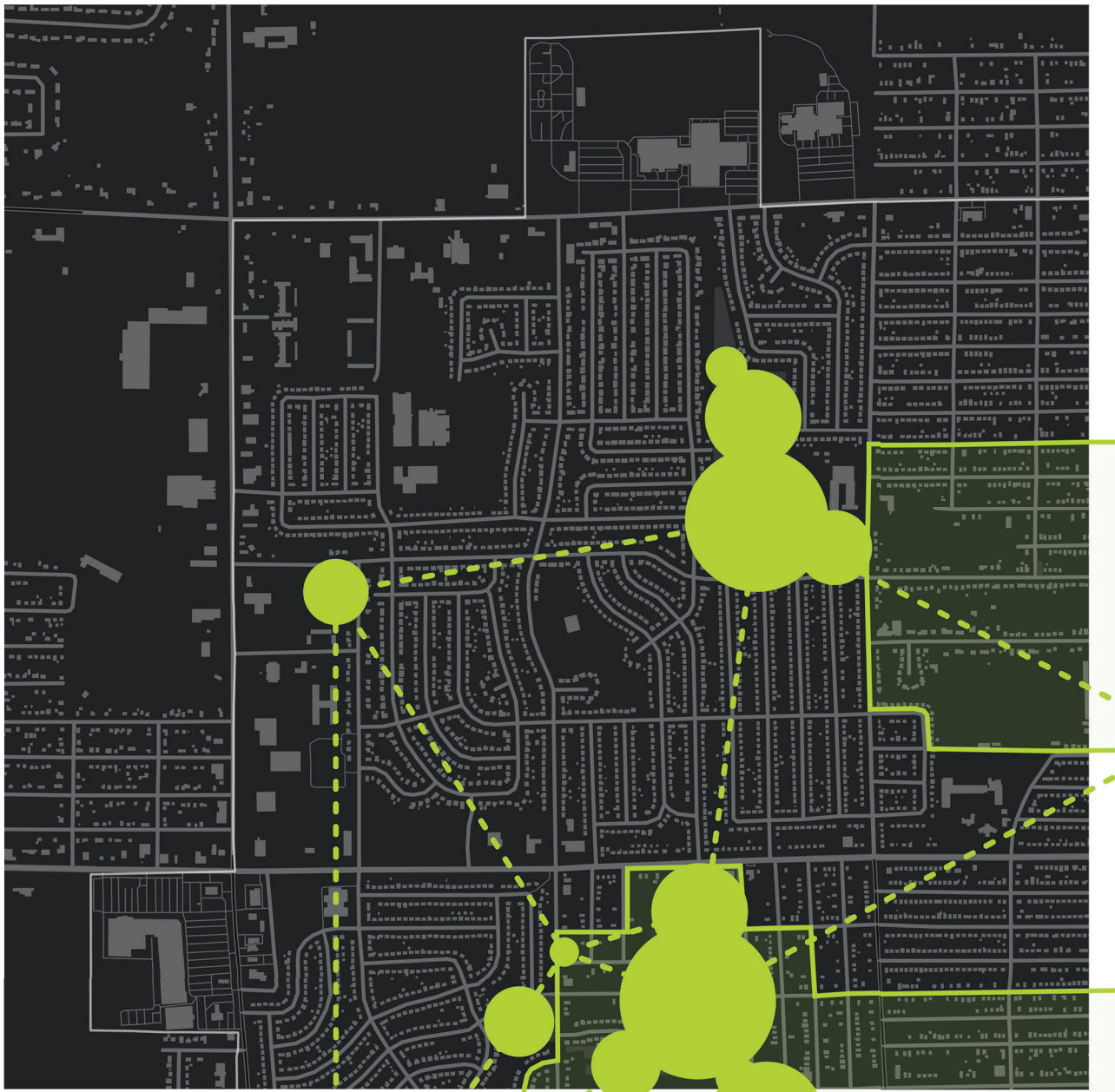


Figure 8.7 - Neighborhood Application of Green Network

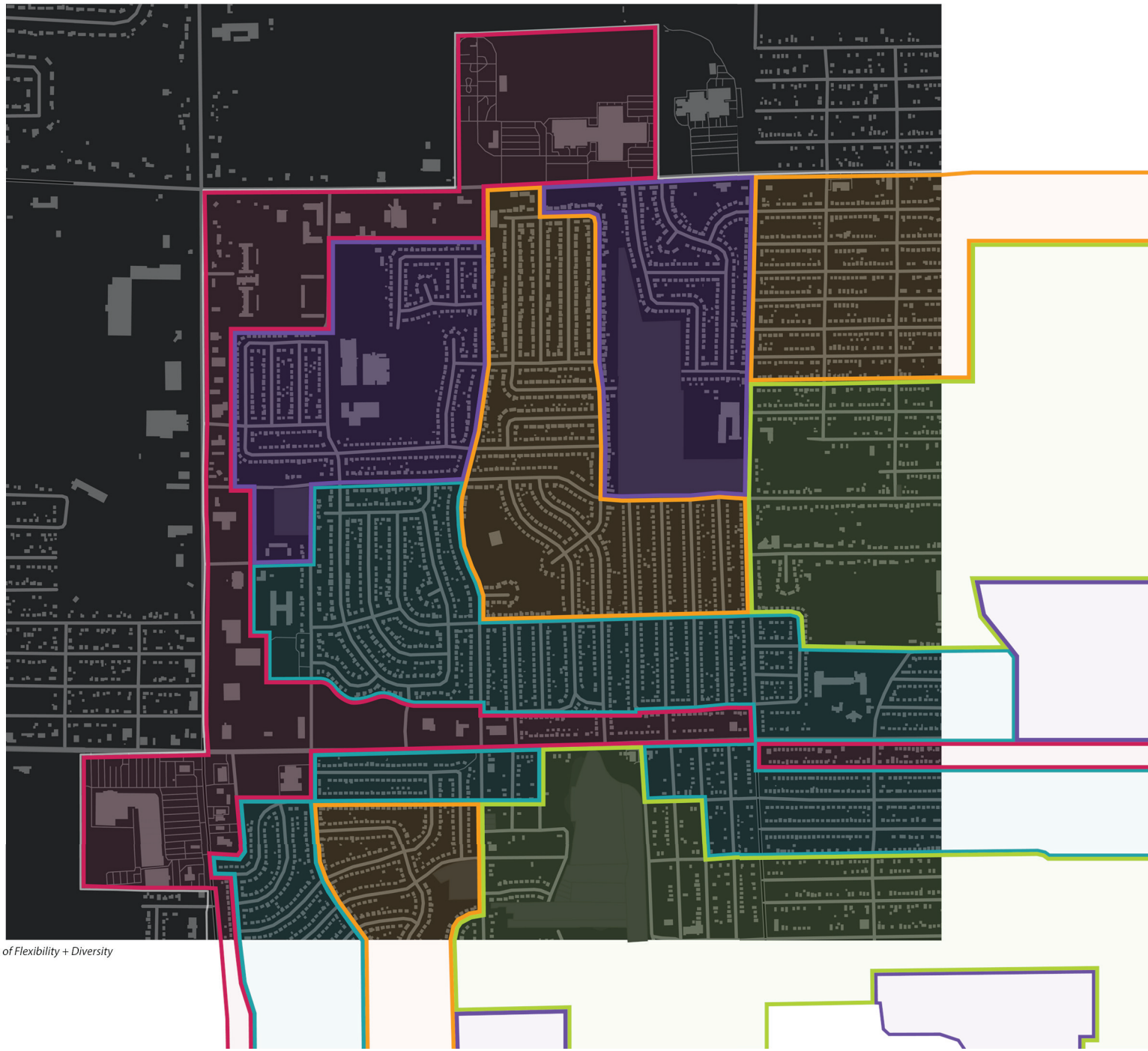


Figure 8.8 - Neighborhood Application of Flexibility + Diversity

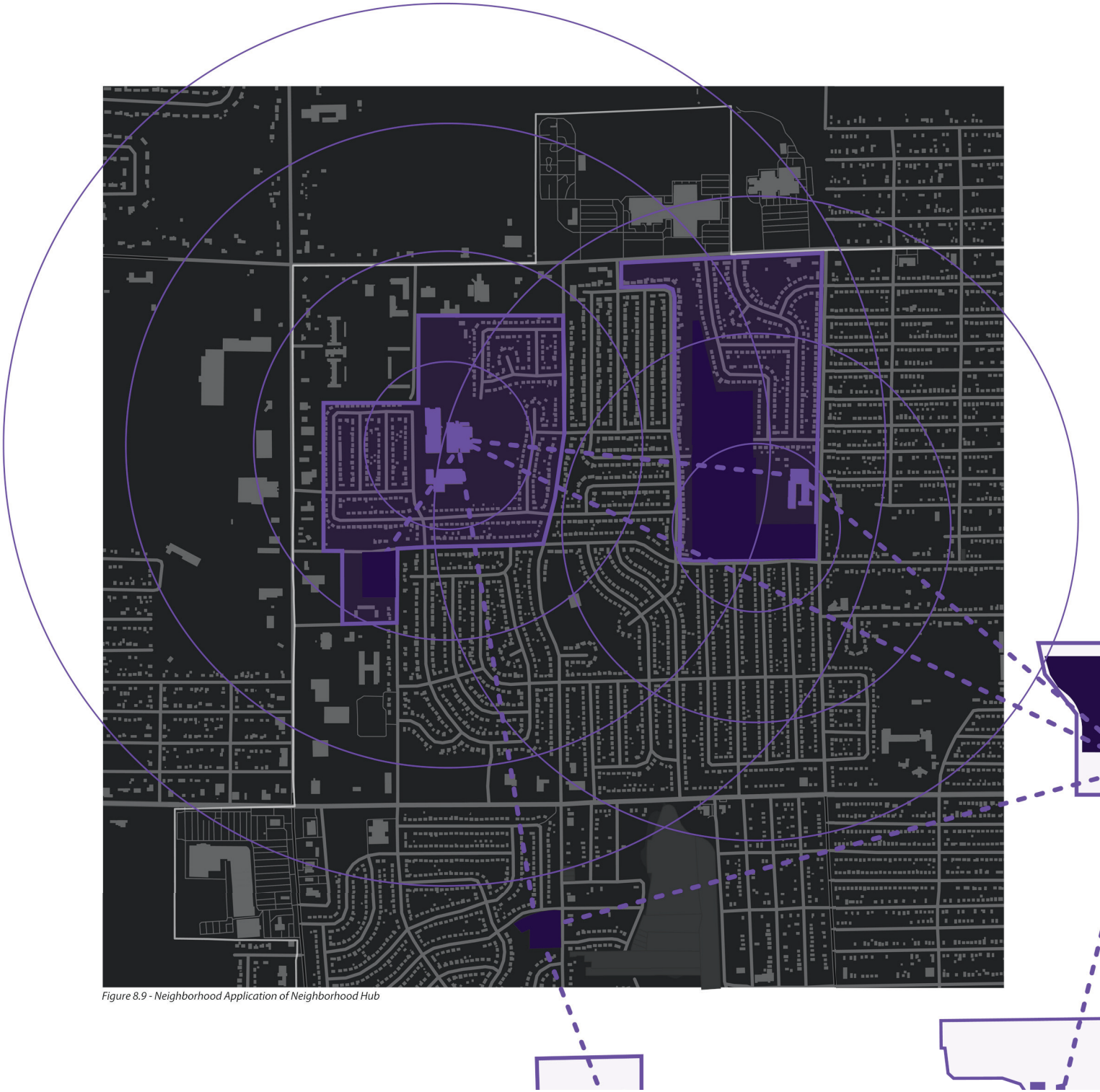


Figure 8.9 - Neighborhood Application of Neighborhood Hub

COLLECTIVE ACTION OF NEIGHBORHOOD NETWORKING

BROWNELL HOLMES NEIGHBORHOOD ASSOCIATION

Population

6,784
Total Population

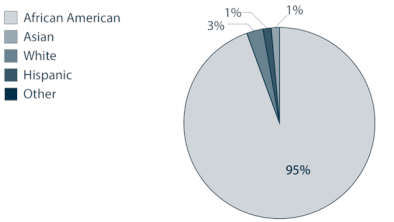
Age

0 - 4 Years	6%
5 - 17 Years	17%
18 - 24 Years	12%
25 - 44 Years	24%
45 - 64 Years	25%
65+ Years	16%

22.9%
Population 0 - 17

39
Median Age

Race / Ethnicity



Education

889
Kids Attending School

16.1%
Earned a Degree

Income

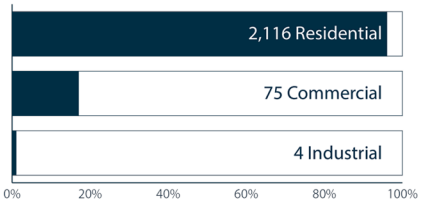
$22,000
Average House Hold Income

41%
Percentage Living Below Federal Poverty Line

Employment

1,198
Workers

Land Use



Property Conditions

29%
Vacancy

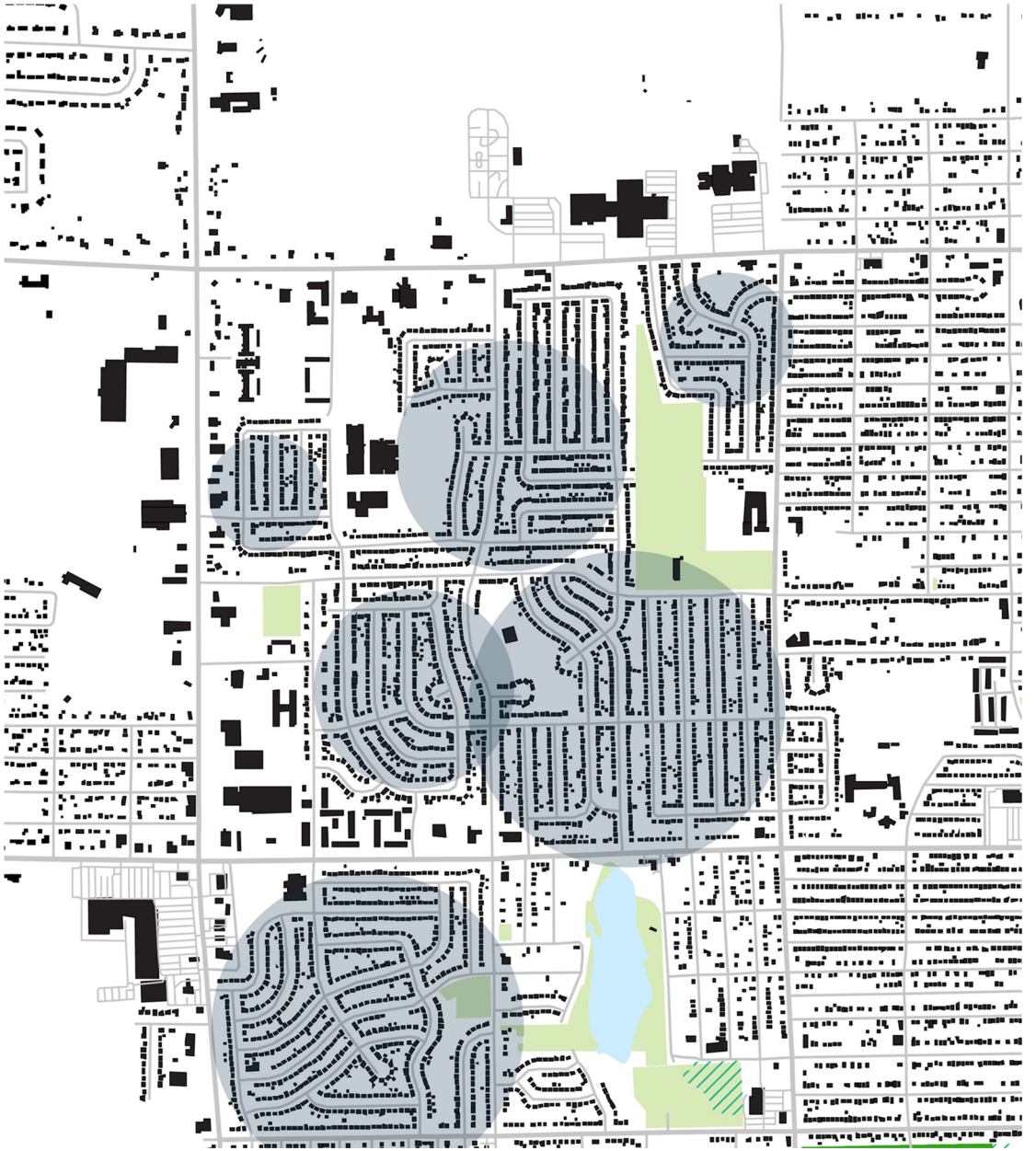


Figure 8.13 - Brownell Holmes Neighborhood

Mary McLoed Bethune Reading Library

Charles S Brownell Public School

Hasselbring Park Senior Community Center

Northwestern Prepatory Academy

Holmes STEM Academy

Hasselbring Park

Brownell Community School

Brownell STEM Academy K-2

ROLLINGWOOD BLIGHT NEIGHBORHOOD ASSOCIATION

Rollingwood
EST. 1960

Population

2,489
Total Population

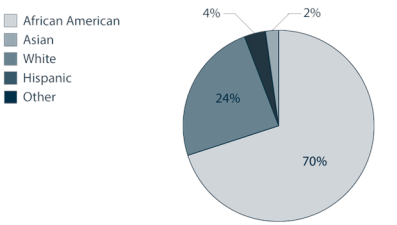
Age

0 - 4 Years	9%
5 - 17 Years	20%
18 - 24 Years	12%
25 - 44 Years	24%
45 - 64 Years	25%
65+ Years	10%

27.6%
Population 0 - 17

39
Median Age

Race / Ethnicity



Education

0
Kids Attending School

12.6%
Earned a Degree

Income

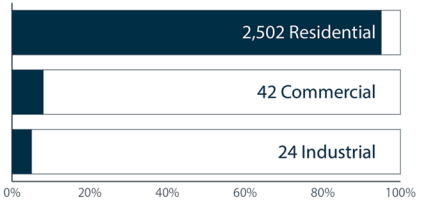
$24,000
Average House Hold Income

50%
Percentage Living Below Federal Poverty Line

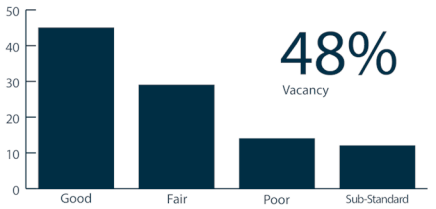
Employment

1,318
Workers

Land Use



Property Conditions



48%
Vacancy

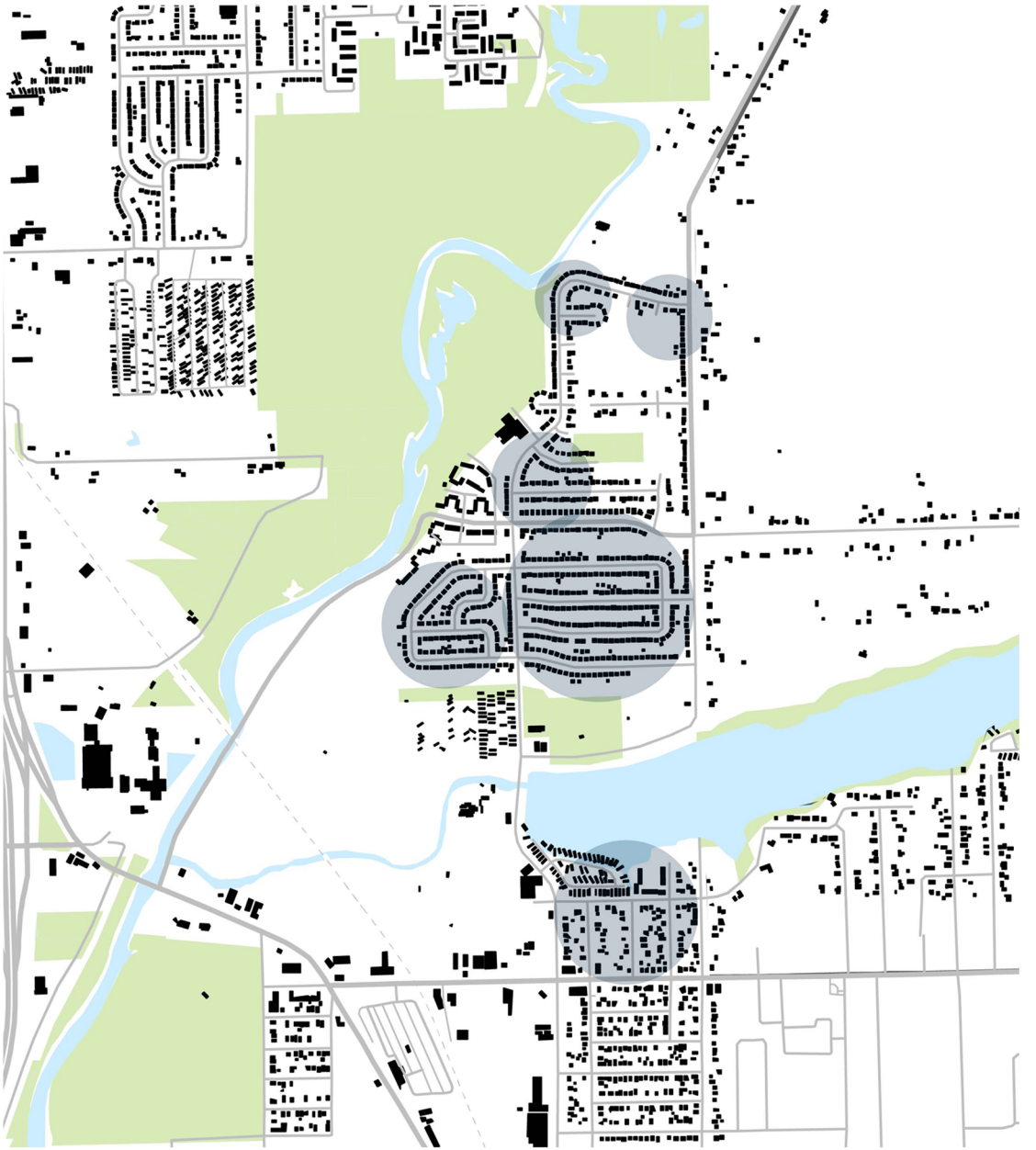


Figure 8.14 - Rollingwood Blight Neighborhood

Rollingwood Picnic Park

Rollingwood Manor Apartments

Shady Acres Mobile Home Park Demolition

Up River Parkway

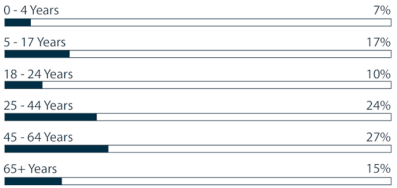
COLLEGE CULTURAL NEIGHBORHOOD ASSOCIATION

College Cultural NEIGHBORHOOD

Population

6,248
Total Population

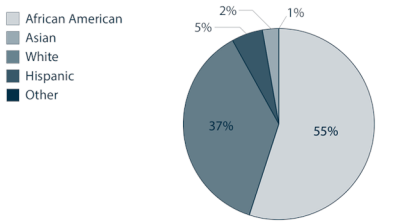
Age



25.7%
Population 0 - 17

37
Median Age

Race / Ethnicity



Education

375
Kids Attending School

36.5%
Earned a Degree

Income

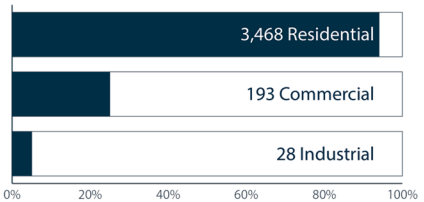
$26,000
Average House Hold Income

35%
Percentage Living Below Federal Poverty Line

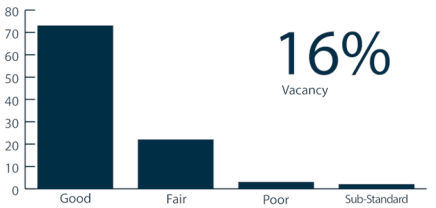
Employment

3,025
Workers

Land Use



Property Conditions



16%
Vacancy

Mott Community College

Charles Stewart Mott Library

Flint Institute of Arts

Flint Cultural Center

Lenore Croudy Family Life Center

Flint Repertory Theatre

The Whiting

Woodlawn Park

Figure 8.15 - College Cultural Neighborhood

MUTUAL AID EXPERIMENTATION

Multi-scale mapping and diagramming of the proposed Neighborhood Networking Strategic Framework Plan improves our knowledge of the interconnected relationships and their complexities that can be used to guide practice, methodology, and design. To illustrate the impact of Neighborhood Networking and the framework's ability to bridge the gaps of inequity within disinvested neighborhoods, interventions are represented at the corridor, neighborhood and city scale. This reveals the extent of connections that appear through Neighborhood Networking, its implications and potential for community development.

Determining whether equitable urban planning was created was addressed through a contextual analysis of three design interventions sites. These sites are located in separate neighborhoods with varying demographics and accessibility to resources. The variety of strengths and weaknesses throughout the neighborhoods provides many great opportunities for community engagement, development, and networking incentives. The three neighborhoods include the following, Brownell Holmes Neighborhood Association, Rollingwood Blight Neighborhood Association, and the College Cultural Neighborhood Association, which have been outlined on their context, relationships and resources in a case study for mutual between neighborhoods to identify potential networking, community engagement and urban planning opportunities. This selection was crucial in ensuring the framework developed can be applied and utilized successfully in any neighborhood. The goal is to reintroduce resources and equity into disinvested neighborhoods, therefore incorporation of middle and resource rich areas is vital in synergizing community engagement, collaboration and networking. Each Neighborhood Network Model was strategically developed to serve communities at the neighborhood scale and also play a larger role in the functionality of a city by creating a physical and social framework of connection.

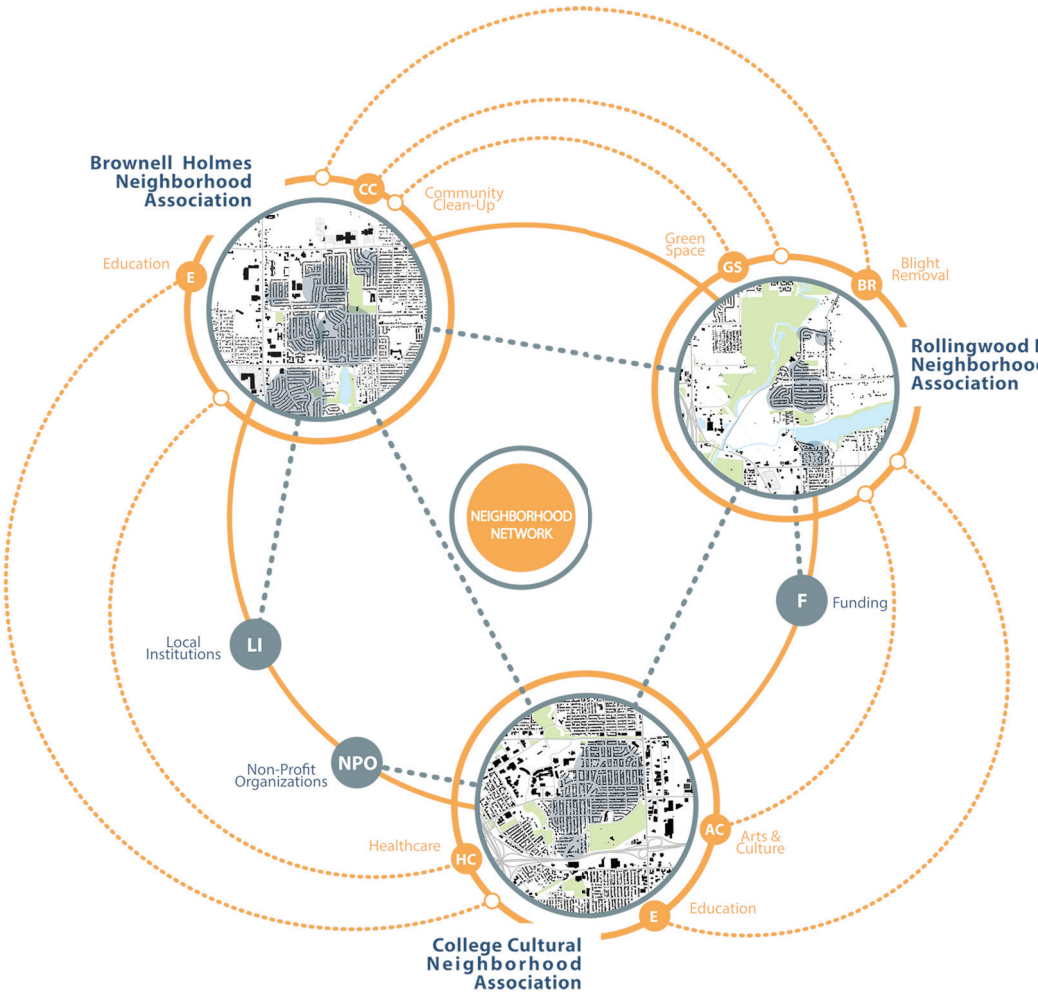


Figure 8.16 - Mutual Aid Network Synergy

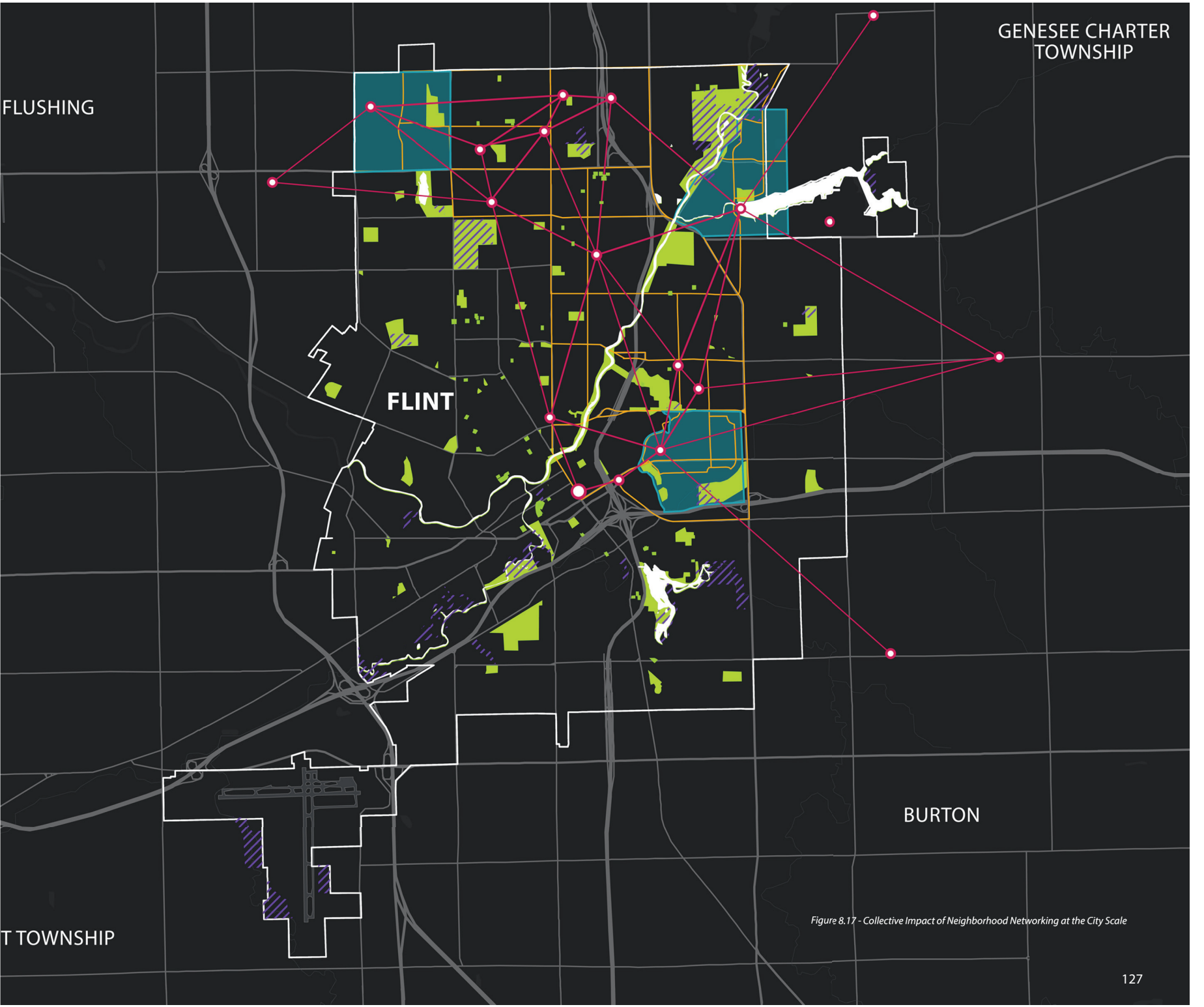
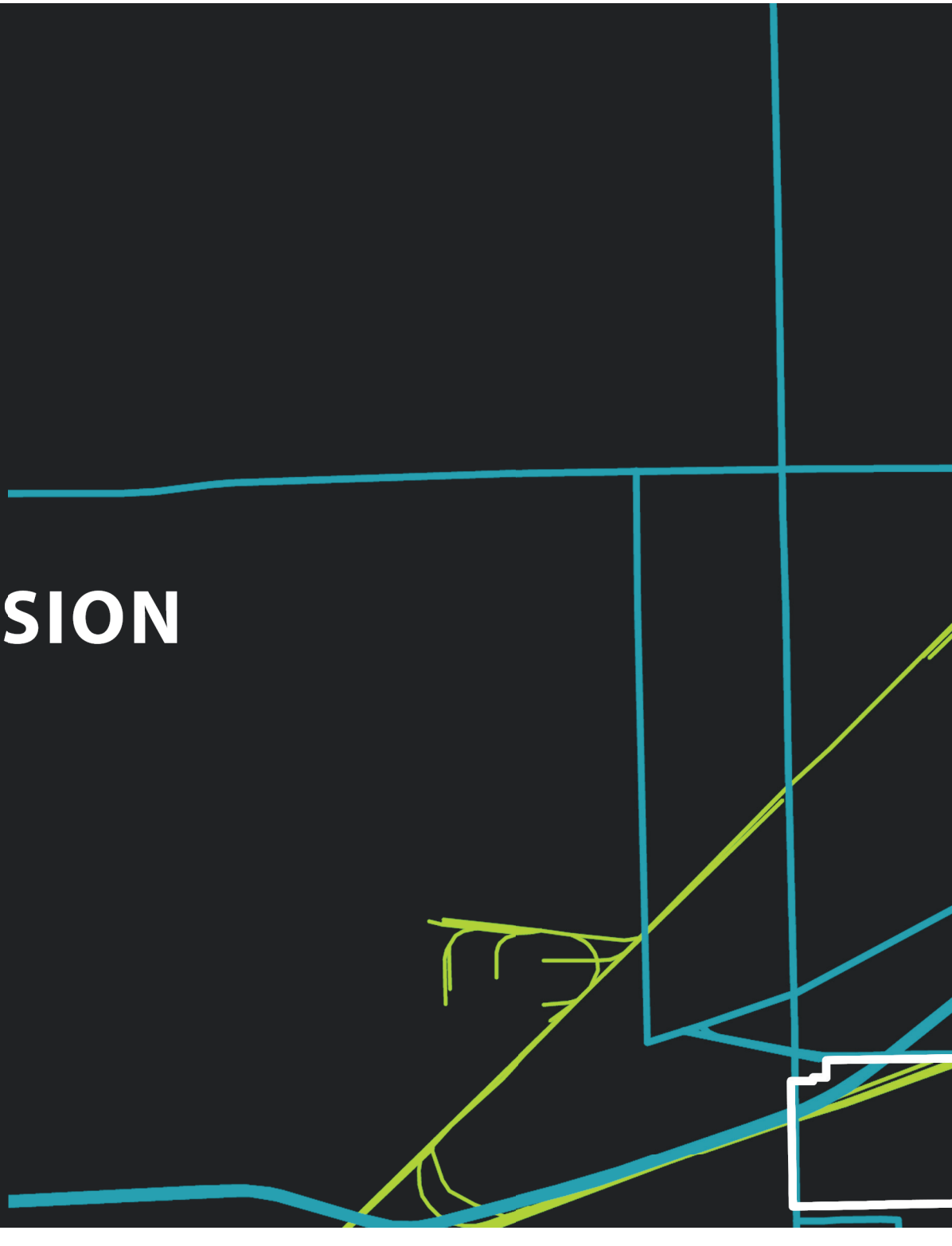
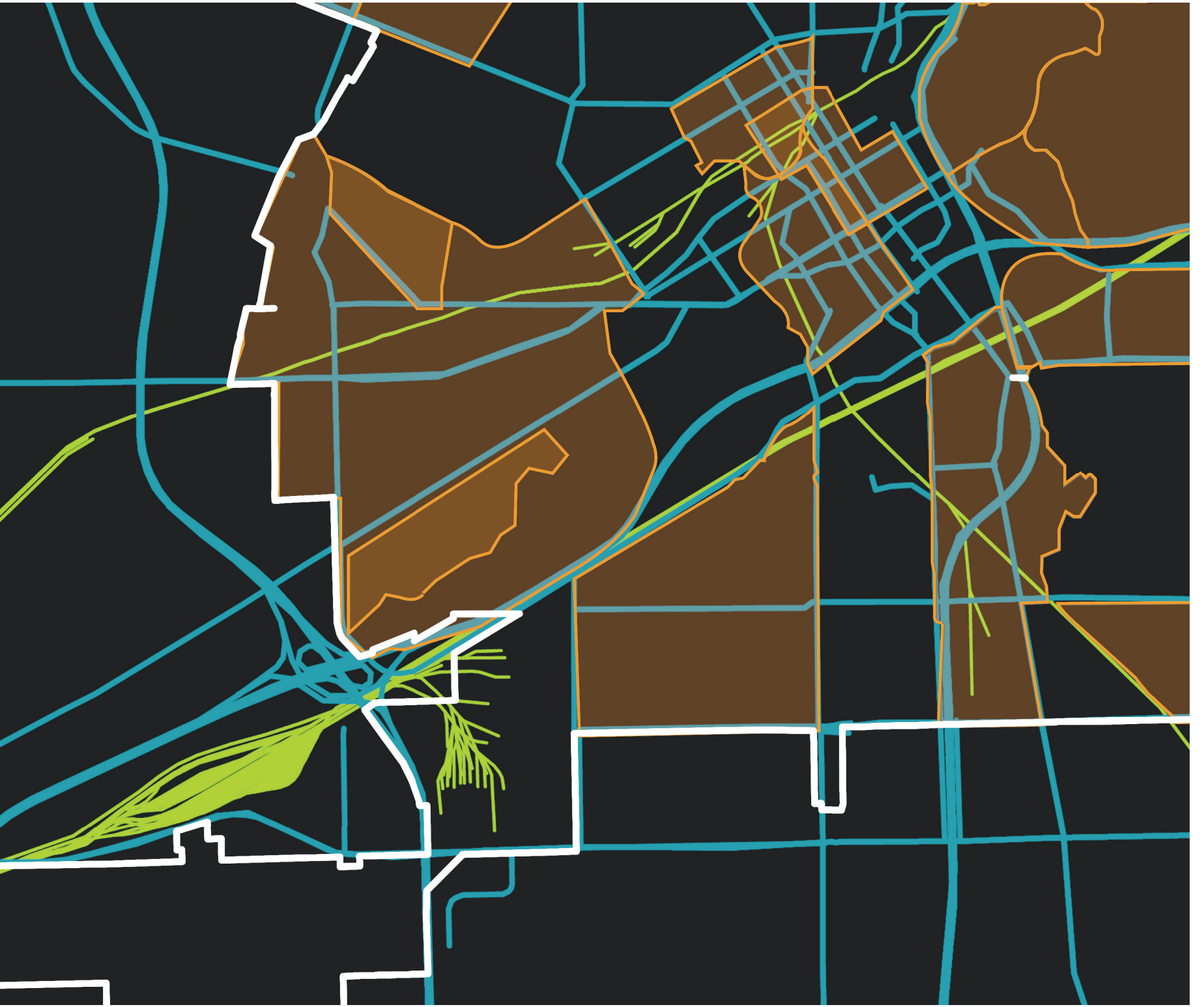


Figure 8.17 - Collective Impact of Neighborhood Networking at the City Scale

CONCLUSION





CONCLUSION

What the investigations in this thesis have proven is that urban planning, networking and scale are linked together in defining equity and quality of life for the smallest components of a city. Introducing the concepts of cities as spatial formations distinguished by social and physical formations constructed of complex systems of networks to the perception of urban scale allows us to consider the various roles and levels of urban planning, specifically at neighborhood proportions. It has proven is that Networking is helpful in allowing us to to think through scales and defining relationships that aid in our designs.It also changes planning in a way that allows us to not just look at communities as underserved but as potentials for interaction, transaction and actions that can reach past city limits.

Prioritizing Networking and functional proportions in Urban Planning allows residents, municipalities, local, state and non-profit organizations to achieve goals and implement project planning more effortlessly. Challenging urban planning and its implications and limitations on small scale city components, it attempts to distribute and stimulate resources in a way to establish autonomy and inclusivity.Each urban scale provides successes and failures, a synthesis of the concepts present at various extents could prove to be beneficial in creating equitable urban planning at the neighborhood scale.

This thesis concludes with the suggestion that the networking ideology may be giving way to modern urban planning strategies where disinvested communities are able to utilize their spatial connectivity and networks to reintegrate accessibility to resources and equitable urban planning.

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